

# MacUser

THE MACINTOSH SOURCE

## 2ND ANNUAL SOFTWARE AWARDS

Plus Desktop Publisher  
Of The Year Winners

### DESKTOP PRODUCTIVITY A SPECIAL SUPPLEMENT

- MORE Packs Presentation Power
- MS Works and Jazz Compared
- Data Base Applications
- Excel vs. 1-2-3: Hard Facts
- Product Directory
- Tip Sheet

AN INFINITE ATLAS  
MapMaker Extends  
the Boundaries

TRY BEFORE  
YOU BUY ADVENTURE  
Dungeons of Doom  
Is a Winner

GRAYPAINT  
The Smoothest Art  
Possible



**NEW!**

# Turbo Pascal for the Mac: incredibly fast and fully integrated!

**B**orland's new Turbo Pascal for the Mac™ is so incredibly fast that it can compile 1,420 lines of source code in the 7.1 seconds it took you to read this sentence.

And reading the rest of this page takes about 5 minutes, which is plenty of time for Turbo Pascal for the Mac to compile at least 60,000 lines of source code!

## *Turbo Pascal for the Mac does both Windows and "Units"*

The *separate* compilation of routines offered by Turbo Pascal for the Mac creates modules called "Units"—which can be linked to any Turbo Pascal® program. This "modular pathway" gives you "pieces" which can then be integrated into larger programs. (You build the "pieces" once, and you know they work, so you can use them again without having to recompile.) The immediate benefits of this technique are a more efficient use of memory and a reduction in the time it takes to develop large programs. (What you need to run Turbo Pascal for the Mac is 256K minimum—or half a Fat Mac, 1 drive, and the ability to handle astonishing speed.)

“The timing of Turbo Pascal for the Mac couldn't be better. The recent success of the Macintosh in business and its continuing momentum in higher education coincide well with the introduction of Turbo Pascal for the Mac. Turbo Pascal is already an industry standard in the IBM-compatible world, and we're very excited to see Borland International's new commitment to provide this and other modestly priced, high-quality software for the Macintosh computer.”

John Sculley, Chairman,  
Apple Computer, Inc. ”

“Turbo Pascal has become the language of choice at major educational institutions around the country, and more than 500,000 copies of the IBM PC version have been sold. We believe that Turbo Pascal for the Mac is the ideal educational and professional programming tool for the Macintosh.”

Philippe Kahn, President,  
Borland International ”



## *Turbo Pascal for the Mac is so compatible with Lisa® that they should be living together*

Routines from Lisa Pascal,™ Macintosh Programmer's Workshop Pascal, and Inside Macintosh can be compiled and run with only the subtlest changes. Turbo Pascal for the Mac is also compatible with the Hierarchical File System of the Macintosh.™ (You can define default volume and folder names for the names used in compiler directives.) Compatibility is also familiarity, and you'll feel right at home with Turbo Pascal for the Mac because it fits neatly into every aspect of the Macintosh environment. The pull-down menus are there, along with dialog boxes to guide you in making choices and picking options.

## *Turbo Pascal for the Mac cranks out more than 12,000 lines a minute*

Better than 12,000 lines per minute of compiled source code race out of Turbo Pascal for the Mac. There is definitely "No Waiting." And none of the "stop/start" compiling delays that afflict some of the software programs that we're not mentioning here. (They can take 10 minutes to do what Turbo Pascal for the Mac can do in 10 seconds!)

You don't spend a lot of up-front time learning to use Turbo Pascal for the Mac. It's as *easy* as it is *fast*—which is not to say that it's over-simplified or written for people who have recently learned to walk erect. Instead, it's electronic proof that sophistication and complication don't need to go hand-in-hand.

## *Clear your desk, SideKick's here!*

SideKick® brings true desktop management and communications to your Mac. Now you can automatically dial phone numbers, log on to bulletin boards, schedule appointments, jot down notes,

In all software, there's the Hard Way, the Wrong Way, the Weird Way, the No Way, and the Borland Way. Welcome to the Borland Way!

## *How to walk and chew gum!*

Turbo Pascal for the Mac lets you do up to 8 different things at once. You can have up to 8 separate programs in memory, work on one, move on; work on another, move back—or duck and weave between all 8 at the same time! And you can do these 8 Easy Pieces while you run the compiler. Multiple editing windows allow you to edit, compile, and execute each window individually. With several windows open at the same time, you switch from one open window to another faster than a cat burglar—and never get caught. It's "take the source code and run!"

## *The 27-Second Guide to Turbo Pascal for the Mac*

- Compilation speed of more than 12,000 lines per minute
- "Unit" structure lets you create programs in modular form
- Multiple editing windows—up to 8 at once
- Compilation options include compiling to disk or memory, or compile and run
- No need to switch between programs to compile or run a program
- Streamlined development and debugging
- Compatibility with Lisa Pascal and Macintosh Programmer's Workshop Pascal (with minimal changes)
- Compatibility with Hierarchical File System of your Mac
- Ability to define default volume and folder names used in compiler directives
- Search and change features in the editor speed up and simplify alteration of routines
- Ability to use all available Macintosh memory without limit
- "Units" included to call all the routines provided by Macintosh Toolbox



calculate business expenses—and more—while running all your other Mac software. Once you get SideKick you'll wonder how you ever did without it!

See order form on right-hand page ▶

# Introducing Reflex for the Mac, NEW! Borland's remarkable new relational database

Because it is a truly relational database, Reflex for the Mac lets you get your various acts together. Lets you connect "A" to "B" to "C," or "Dog" to "Cat" to "Fight." Or whatever links and connections you need to make and need to see. It's a simple spreadsheet-style series of electronic and visual cross-references. There's a clear connection (which you first make by drawing it on-screen) between "Client"—"Matter"—"Attorney"—"Time Sheet"—"Expenses" and "Bill." Or between "Slow Driver in Left-Hand Lane"—"Mile-long Traffic Jam" and "Shot from Behind." It's all relational.

Designed to make the most of your Mac's visual talents, Reflex for the Mac lets you place fields and pictures wherever you want them on the page—and print them that way with your Report Generator.

### A funny way to use Reflex for the Mac

Let's say you have to make a lot of speeches and you like to tell jokes, but can't always remember the right one for the right audience at the right time. So you use Reflex for the Mac to set up multiple files

that all connect to each other.

Your "Joke" file connects to your "Audience" file, which is split into categories like "Friendly," "Hostile," "Dumb," "Student" or whatever—all of which are interconnected and relational. Reflex for the Mac lets you find the right joke for the right audience, right now.

(The serious sides of business include applications like client billing, stock portfolio management, tax planning, and your checkbook.)



“ Really uses the visual strength of the Mac to produce a database design tool

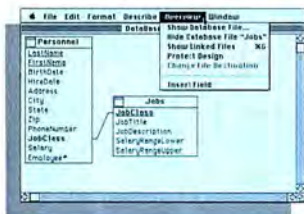
Adam Greene, InfoWorld

... a stunningly wonderful application generator/dbms

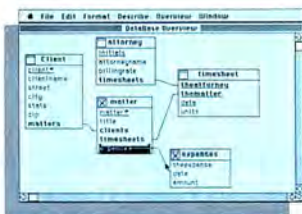
Esther Dyson, Release 1.0

Bridges the gap between the pretty programs and the power programs

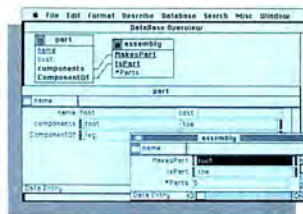
Stewart Alsop, PC Letter ”



After opening the "Overview" window, you draw link lines between databases directly onto your Macintosh screen.



The link lines you draw establish both visual and electronic relationships between your databases.



You can have multiple windows open simultaneously to view all members of a linked set—which are interactive and truly relational.

### Mac News for Kangaroos!

Heart of America, one of the U.S. 12-meter contestants in the America's Cup races in Australia, is relying on Reflex for the Mac to help Bring The Cup Up. (They're also using Borland's SideKick and Turbo Pascal.) Reflex analyzes 20 different variables like wind speed, heel angle, backstay load, trim tab angle, rudder angle and 15 other criteria to show and tell Heart of America where to be when—and what to do now to win!



### You need Reflex for the Mac

Get some Reflex action out of your Mac. Call now. With Reflex for the Mac, you'll have all the right connections—for only \$99.95!

Heart of America's skipper Buddy Meiges with Borland International's skipper Philippe Kahn on a testing, training, and analytical run, Santa Cruz, California.

**YES!** I want the best!

Send me Turbo Pascal for the Mac, Reflex for the Mac, or SideKick for Mac at:

**\$99.95**

To order by phone or for a dealer nearest you, call (800) 255-8008 in CA call (800) 742-1133

- Turbo Pascal for the Mac \$99.95 \_\_\_\_\_
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**Minimum system requirements:**

Turbo Pascal for the Mac: 256K. Reflex for the Mac: 512K. SideKick for the Mac: 128K.

M58



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(408) 438-8400 TELEX: 172373

Borland products include Turbo Pascal, Turbo Pascal for the Mac, Turbo Tutor, Turbo Editor, Turbo Toolbox, Turbo Database Toolbox, Turbo Graphix Toolbox, Turbo GameWorks, Turbo Lightning, Lightning Word Wizard, Reflex, The Analyst, Reflex for the Mac, Reflex Workshop, SideKick, SideKick for the Mac, Traveling SideKick, and SuperKey—all of which are trademarks or registered trademarks of Borland International, Inc. or Borland/Analytica, Inc. Traveling SideKick is not in any way associated with Traveling Software, Inc. of Seattle, Washington.

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# MacUser

THE MACINTOSH RESOURCE

Cover Illustration by Jim Ludtke

## POWER COMPUTING

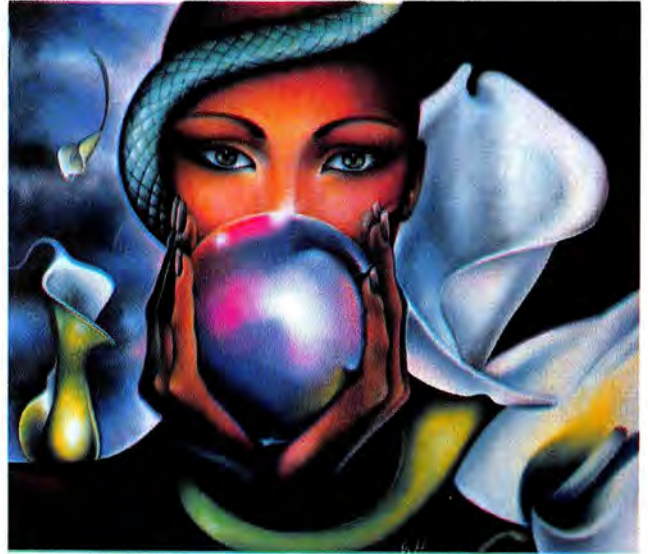
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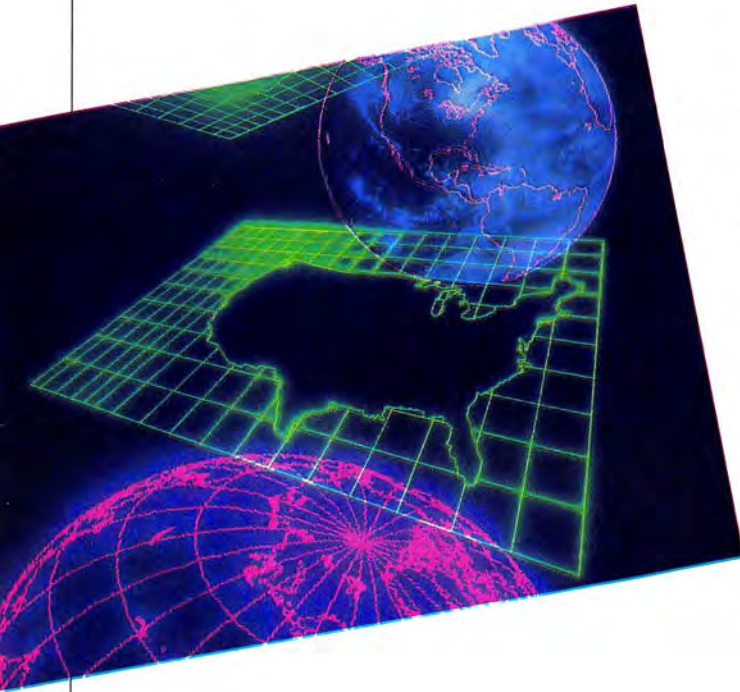
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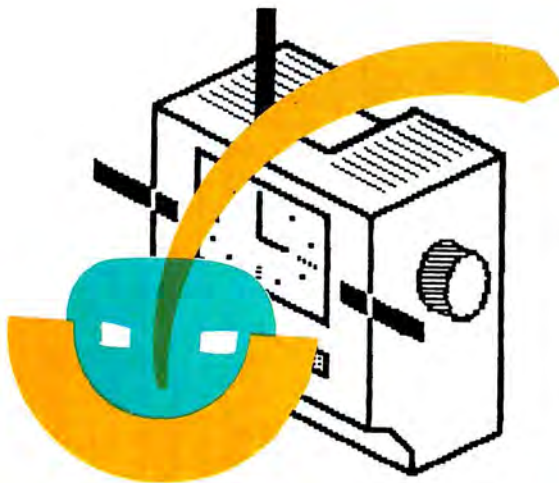
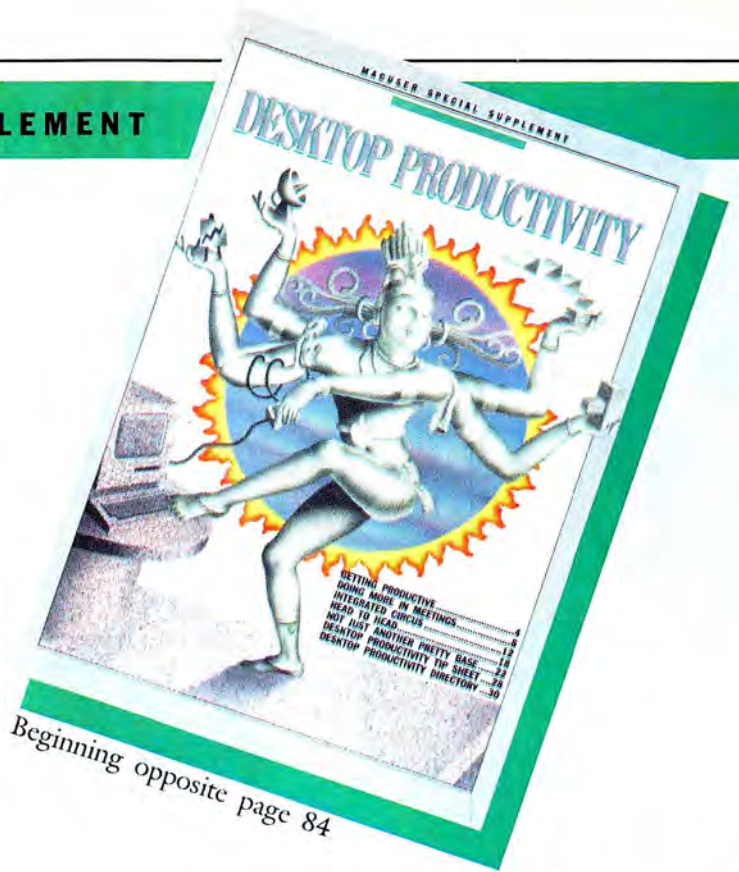


*Publisher's Thought for the month:*  
"There is hardly anything in the world that some man can't make a little worse and sell a little cheaper, and the people who consider price only are this man's lawful prey."— *John Ruskin 1819 - 1900*



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# the MacWish list



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# MacUser

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**NOW AVAILABLE  
FOR THE Apple IIgs**

# Object Pascal for the Mac!



**And now for the Apple //GS...**

**TML Pascal and TML Source Code Library!**

## New TML Pascal v2.0 Language Features

Separate compilation of Units

Object Pascal language features for object-oriented programming  
Complete support for Lisa Pascal style type casting and qualification  
Complete access to all extended SANE operations  
Universal parameter types, and much much more...

### DEVELOP

Stand-alone double-clickable applications with their own icon  
Desk accessories that can be installed in the "apple" menu  
Menu, window, control and list definitions, function keys, etc.

### COMPLETE ACCESS TO MAC ROM

Every ROM routine is available exactly as defined by Inside Macintosh

- Quickdraw
- Operating System
- Packages
- AppleTalk Local Area Network
- MacinTalk speech synthesis
- SCSI Manager
- Toolbox
- Printing
- Serial Drivers
- 3D Graphics
- List Manager

Floating point operations uses the built in Standard Apple Numerics Environment (SANE)

### TWO COMPILATION MODES

Compile to relocatable object code (MDS .Rel files)  
Compile to assembly source code with Pascal source inserted as comments (MDS .Asm files)

### FAST AND EFFICIENT

Compile up to 4,000 lines per minute and up to 5,500 on a RAM disk

Execution benchmarks for Sieve:

<b>TML Pascal v2.0:</b>	<b>5.7 seconds</b>
MPW v1.0b2:	6.9 seconds
Lightspeed Pascal v1.0:	9.1 seconds

### ... AND THE FUTURE

MC68881 floating point co-processor support  
Symbolic Debugging

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## Other TML Systems Development Tools

### TML Source Code Library \$79.95



- 18 source code examples (over 1Mb on 3 disks)
- Complete User Manual documenting each example

GrafMDEF

### Example programs demonstrate how to program...

- Print Manager
- Standard File Dialog
- MacinTalk Speech
- Serial Drivers
- Split-scrollable windows
- Pop-up Menus

- Menu Definitions
- Window Definitions
- Function Keys
- Control Definitions
- List Definitions
- Desk Accessories

### Database Toolkit \$89.95

- Complete library of Pascal procedures that allow you to quickly sort, search and manage your data to build applications.
- It is a complete and very powerful ISAM package.
- Comes with free source code to several example applications including a complete Name and Address database.
- Includes a 80+ page user manual.

### MiniEdit Source Code Disk \$19.95

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Face it. You're a job hopper. Constantly skipping from one kind of crisis to another.

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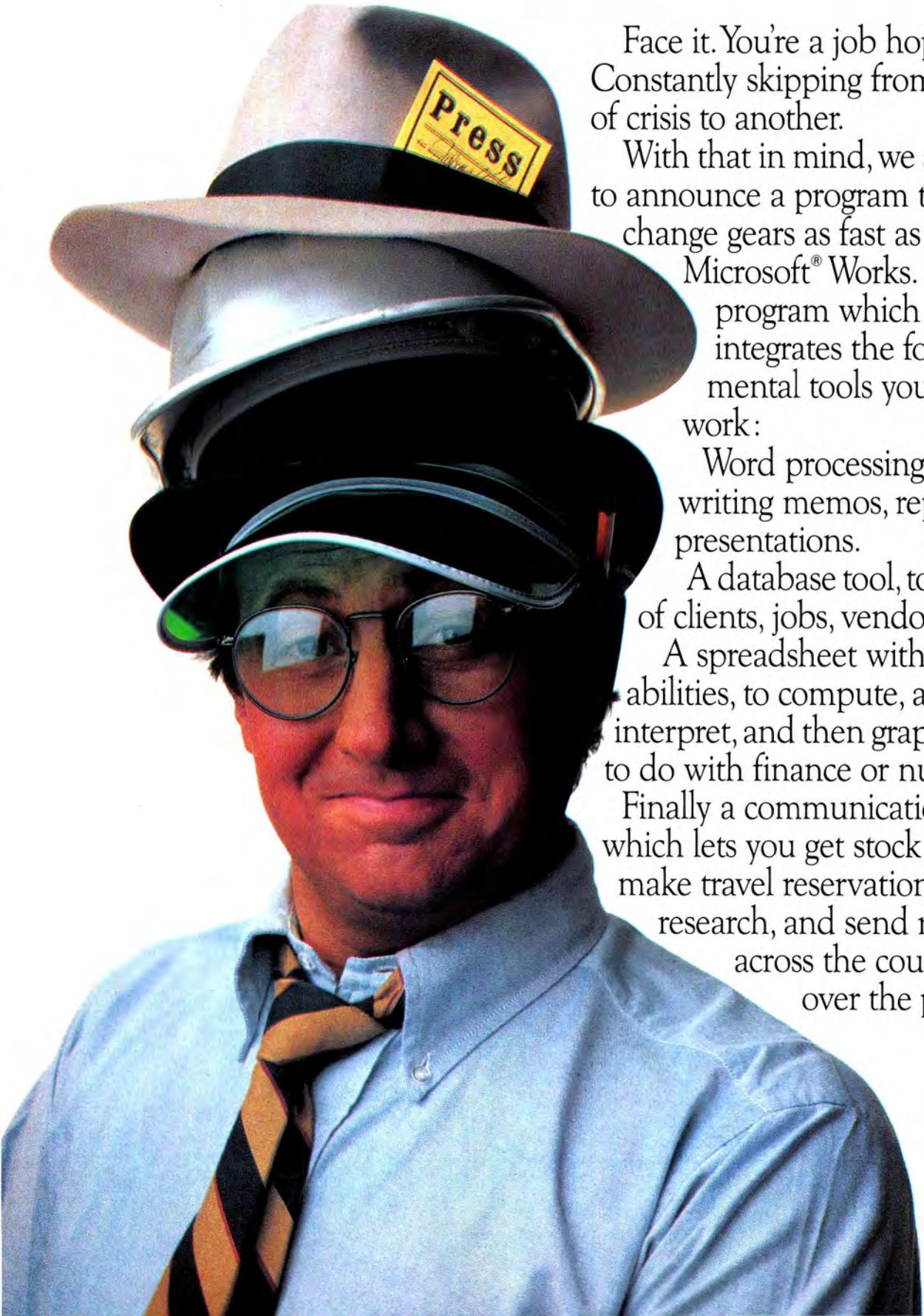
Microsoft® Works. A one disk program which gracefully integrates the four fundamental tools you need at work:

Word processing, for writing memos, reports, presentations.

A database tool, to keep track of clients, jobs, vendors.

A spreadsheet with charting abilities, to compute, analyze, interpret, and then graph anything to do with finance or numbers.

Finally a communications tool which lets you get stock quotes, make travel reservations, do research, and send reports across the country, right over the phone lines.





# for you to change jobs.

Microsoft Works lets you juggle all these jobs, move swiftly and easily between them, while transferring and combining their information as you please. Because you do all these jobs with one, easy to learn, totally integrated program.

## Quick study. Quick change.

The first job is the easiest. Learning to use Microsoft Works.

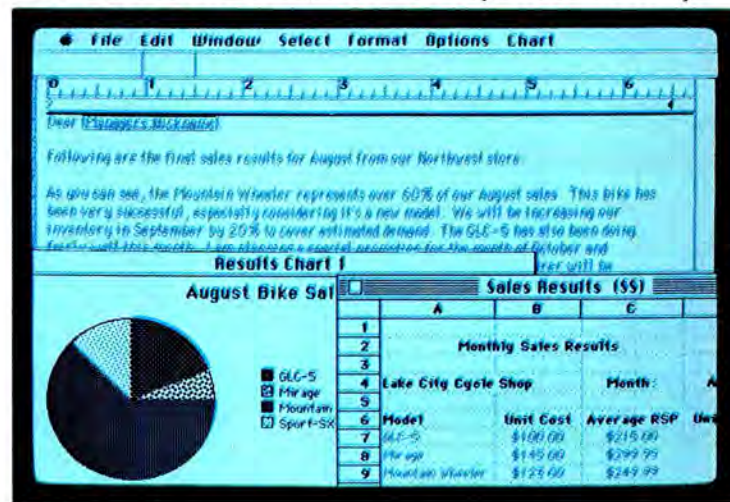
It's a snap. The overall program and each tool within runs Macintosh™ style. Which, as you probably know, is a natural, common sense, point-at-what-you-want system.

And Microsoft Works is seamlessly melded together. You can have all four tools on screen at once. Jump instantly from one to another. And later combine work done in each part of the program on a single printed page.

This easy exchange of data makes jobs go faster and easier. One practical example being mass

mailings of form letters where you need to combine names from the database with text written in the word processor.

All in all, Microsoft Works is a superb solution for day to day, get-it-done problems. An inspiring display of convenience, efficiency, and utility.



And, of course, it's a product of Microsoft, the preeminent developer of programs for the Macintosh. Which is not a claim, it's a fact.

If you're in a business that won't let you stick to one thing, check out Microsoft Works. The program that can change jobs as fast as you do.

## Introducing Microsoft® Works

The High Performance Software



# THE ONLY COMPLETE MULTIUSER SYSTEM FOR APPLETALK AND ANY HARD DISK

## MultiUser Helix

MultiUser Helix is a shared data-based information management and decision support system that includes a complete application building environment. With MultiUser Helix you can design a system to run a business, office, or department and then share that system to coordinate the efforts of your people.

## No programming necessary

Use icons and visual design tools to create all the vital input and report forms, lists, analyses, and mail merge letters needed to run your business. No need to learn a programming language, understand arcane command codes or special formulae. Visual building blocks let you quickly set up data-based calculations to take care of any business need; from order entry, inventory control and invoicing to sales analyses, budget tracking and asset management.



*Design forms that reflect the way your business works — from mailing labels to entry forms to presentation-quality reports. All Macintosh fonts, styles and graphics capabilities are supported.*

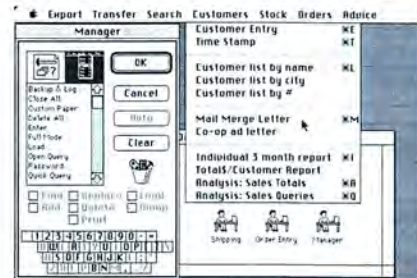
## Everything built in

In MultiUser Helix, the multiuser capability — enabling more than one person to work with the same information base at the same time — is built into the software. All other systems require special hardware or extra software. They "force" a multiuser effect with programming tricks like "semaphores," and rely on external "file servers" to simulate multiple access to files. This results in a complicated, inflexible, slower, and more expensive system. In MultiUser Helix, the whole network functions like a human nervous system, with its own updating and feedback mechanisms as a natural part of the system. There is no reliance on external hardware devices, and no need to worry about programming interlocks and special volume configurations.



## A system everyone can share

Just connect your Macintosh computers with the AppleTalk network (the same cables that connect the Macintosh with the LaserWriter). MultiUser Helix automatically updates all screens and shows the current results of any changes made on the network. MultiUser Helix handles all network control, including record updating and record locking. Since everything is already built in, there is no need to worry about special file server hardware or software. Best of all, MultiUser Helix works with any hard disk.



*Simply type your own menu names into the Macintosh menu bar and drag form names and commands into the menus. Then click user options and permissions on a per form basis before assigning keyboard controls which instantly open forms for entry, automatic reports and printing.*

## Expandable

This package contains 3 MultiUser Host/Guest disks, so that you can start with a 3 station network. Additional stations are available to a total of 31 per network.

## Full support from Odesta

This MultiUser Helix package includes: 7 disks (2 Double Helix v.1+ program disks, System disk, Resource/Work disk with sample applications, 3 MultiUser Helix Host/Guest disks); 3 reference manuals, including a tutorial Quick Start guide, and an 18 ring project binder with notepad. To Odesta, your business is as important as our own: call us toll-free with technical questions or to inquire about our Consulting and Application Design Services.

## Key Network Features

- Supports AppleTalk Network
  - Compatible with any hard disk (no fileserver required)
  - Expands up to 30 users per network
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  - Automatic external data log file to ensure data integrity
  - Automatic updating of any record or list — on screen
  - Complete control of viewing, adding, deleting, changing, or printing information on a per form/per user basis
  - Capability of having multiple "hosts" on one network simultaneously
  - Can be used in conjunction with volume servers and file servers
  - MultiUser Helix receives the same excellent support Odesta gives to the other members of the Helix family
- ## Requirements
- Network host requires hard disk, and 1Mb memory is recommended.
  - AppleTalk Network.
  - Guest nodes work with the Macintosh Plus, 512E, or Macintosh 512 with external drive.



Odesta Corporation 4084 Commercial Avenue Northbrook, IL 60062 U.S.A.  
800-323-5423 (In IL) 312-498-5615

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# INTRODUCING RAGTIME™

## Integrated Page Processing

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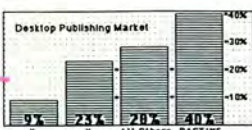
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need, large or small, Ragtime is the solution.

From memos to magazines, Ragtime's Word Processor is the complete answer for creation of text. As a stand-alone word processor, users can

begin with a familiar item like a letter, and quickly grow to complex documents.

Building multiple pages at a time with headlines, multiple columns, variable margins and with optional justification is what we mean by Page Layout, known formally as Desktop Publishing. Ragtime easily integrates your word processing text into formatted pages. Without limits, you can grow into a highly sophisticated set of tools for the professional graphic designer.

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#### RAGTIME SALES

	QUARTER 1	QUARTER 2	QUARTER 3	QUARTER 4	FY86
USA	5000	4250	5275	6500	21025
AUSTRALIA	240	220	265	300	1025
CANADA	350	335	425	500	1610
ENGLAND	120	100	145	160	525
OTHER	75	75	75	75	300
TOTAL	5785	4980	6185	7535	24485

#### NOTICE

Ragtime may be previewed at the following trade shows:

Seybold DTP Conference	9/3/86	San Francisco
COMDEX	11/10/86	Las Vegas
MacWorld Expo	1/8/87	San Francisco
Computer Pub Expo	3/26/87	Chicago

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#M5	Macintosh, Keyboard, Large Imagerwriter, and Mouse	\$29.95

Apple IIc Sets		Prices
#C1	Apple IIc CPU, Monitor <sup>2</sup> , and Mouse (Separate covers)	\$18.95
#C2	Apple IIc CPU, Monitor <sup>2</sup> , External Disk Drive, and Mouse	\$24.95
#C3	Apple IIc CPU, Monitor <sup>2</sup> , Imagerwriter <sup>1</sup> , External Disk Drive, and Mouse	\$29.95
#C4	Apple IIc CPU, Monitor <sup>2</sup> , Scribe, External Disk Drive, and Mouse	\$29.95

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#E11	E1 with Imagerwriter <sup>1</sup> (Two covers)	\$31.95
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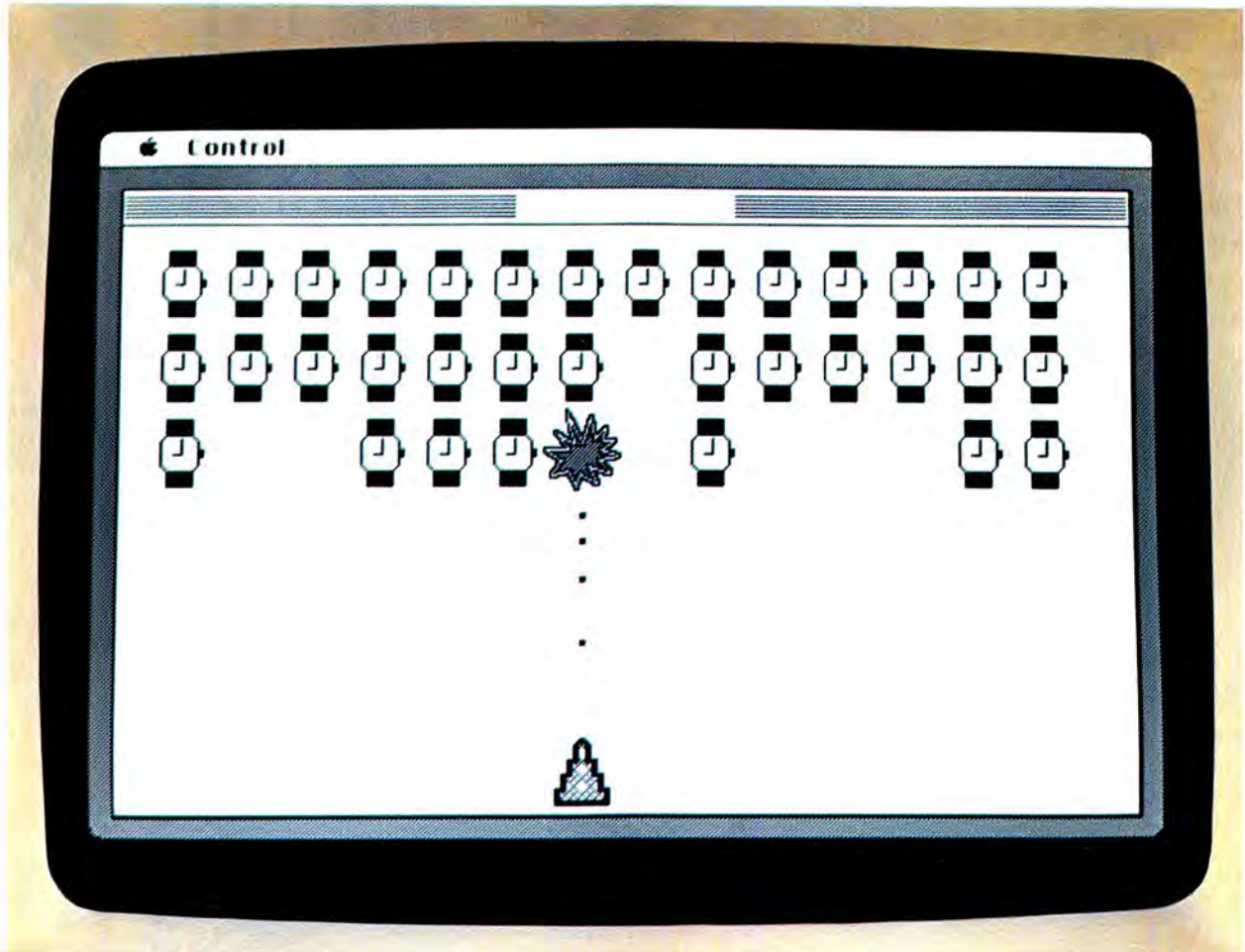
The Macintosh Boundary from **Doug Clapp**. **John Dvorak** on the state of the Mac. **Robert Wiggins'** Pinstripe Mac. **Dan Cochran** with Answers from the Mac Team. Three pages of hints and tips. Over 250 **MiniFinders**. An expanded **Quick Click** section, now including hardware. More **Cauzin Softstrips**.

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# e talk?"

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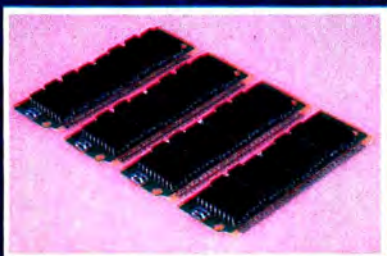
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by Neil Shapiro

# BIG BROTHER AND NEWSPEAK

Well, it has finally happened — the Macintosh is being taken more than just seriously in trade journals and magazines and by the competition. We are now in the fourth stage of the computer's history as reported by some of the general media and specifically by IBM PC-oriented journals. The first stage was "What Is That? Ha, Hah!" the second stage was "Here Comes A Little Software," the third stage was "Hey, Maybe It's Not A Toy!" and the stage we are in now is "Just Wait For Big Blue!"

All of this goes to show that when Apple introduced the Macintosh in 1984 they chose their introductory theme with great foresight. Perhaps 1984 was not like 1984, but I have seen some articles in 1986 that have been pretty close to the Orwellian fantasy.

Big Brother will surely restore the material dialectic of the masses to the proletariat. Or something like that.

## THE MINISTRIES OF TRUTH

How often have you read an article on desktop publishing that did not mention the Macintosh and the LaserWriter? Or, an article that mentioned them only (excuse me) peripherally? Unless all you read are the Mac magazines, probably more times than you would have thought possible.

They've taken the LaserWriter and they've tried to turn it into a nonperson.

Or worse, they've tried to turn it into just the man on the street instead of the leader of the pack.

These type of articles will obliquely mention the fact that the Macintosh and the LaserWriter exist, and that they are presently the best way to go about microcomputerized desktop publishing. But then, these pundits will more than prophesize, they will proseletize that the IBM PC will soon be able to run the same sort of software and that it can already access laser-variety printers.

Well, I'll believe a lot of things. I even believed that Scarlett O'Hara could make a ball gown out of an old pair of drapes (well, until I saw a Carol Burnett skit

based on that event). But I can't believe that the IBM PC is ever going to catch up to the Macintosh in this most important new area of personal computing.

It would take a full redesign of the IBM PC, operating system and hardware both. Don't hold your breath.

The Mac just has it all—all the routines needed for a desktop publishing program to call upon—in ROM. Leaving aside even the graphic resolution of the Mac and its crisp black on white display, such things as windows, menus and mouse-controlled events are the backbone of such programs as *PageMaker* and *ReadySetGo*.

*Gem*, *GEOS*, *Windows*: All have tried to copy the Macintosh interface on a number of different machines. All of them have failed to some degree or another to capture the integrity, the beauty, the depth of the Macintosh design.

*(Quick parenthetical story you may skip right over: A possibly apocryphal tale was related to me that Bill Atkinson was one day puzzling over how to make windows appear to resize as smoothly as they do. Eureka! he suddenly thought of the algorithm and jumped in his car to drive to Apple. He woke up many hours later from a car accident in a hospital bed. Luckily for the rest of us he was not only still alive but even remembered the algorithm. The moral here is, obviously, if you program, don't drive.)*

Certainly the IBM PC will be able to do some sort of desktop publishing. It may even be pretty good compared to all other computers excepting the Mac. But there's no doubt that the Macintosh and the LaserWriter will remain at the forefront of this new field.

And not even Big Brother can change those facts.

## CONNECTIONS EVERYWHERE

Desktop publishing is, of course, not the only area in which the Macintosh is moving into the Fortune 500 in a big manner. Super businesses also need computers that connect. Connect to other micros. Connect to mainframes. And Apple is not negelecting this aspect of the fight.

We see programs such as *Helix* which allow for mainframe VAX machines to work with the Mac. There is even a group of high-level programmers who meet informally and issue papers on a project called the "VAXintosh."

Meanwhile, the SCSI port and such things as AppleTalk are making Macs ever easier to hook together.

But the real connection will come

when Apple, as per John Sculley's announced intentions, comes up with a way for the Macintosh to run MS-DOS. We expect that this will happen just about on the same day any slotted Mac is announced.

This is important: And not because the Macintosh will be able to run 1-2-3. Rather, it will allow businesses to upgrade to the Macintosh from the IBM PC without having to sacrifice their data disks on the altar of obsolescence.

If IBM were smart they'd announce a few ways to connect to the Mac. But connections have never been their forte. Too bad, for them, because it is the ability to connect that will decide what computer system sets tomorrow's standard.



## SAVE THAT PRICE POINT!

I've been avidly playing a new game called *Smash Hit Racquetball*. As mentioned in our review pages the game is superb with fantastic animation and playability. And all for \$14.95.

Yet many industry people I have spoken with maintain that the company will be cutting their own throats on the edge of that price point. You cannot sell software so cheaply and succeed, according to these profits of monetary doom.

The argument goes that 1) The consumer will not perceive the value of an underpriced package; 2) Vendors will not be able to make enough profit on that price point so as to stock the package; and 3) It's a game and gaming is dead.

I think that it's up to us all to prove that these gloom-sayers are wrong. I think that owners of Macintosh computers are wise enough to look beyond price to an appreciation of value. I think that if

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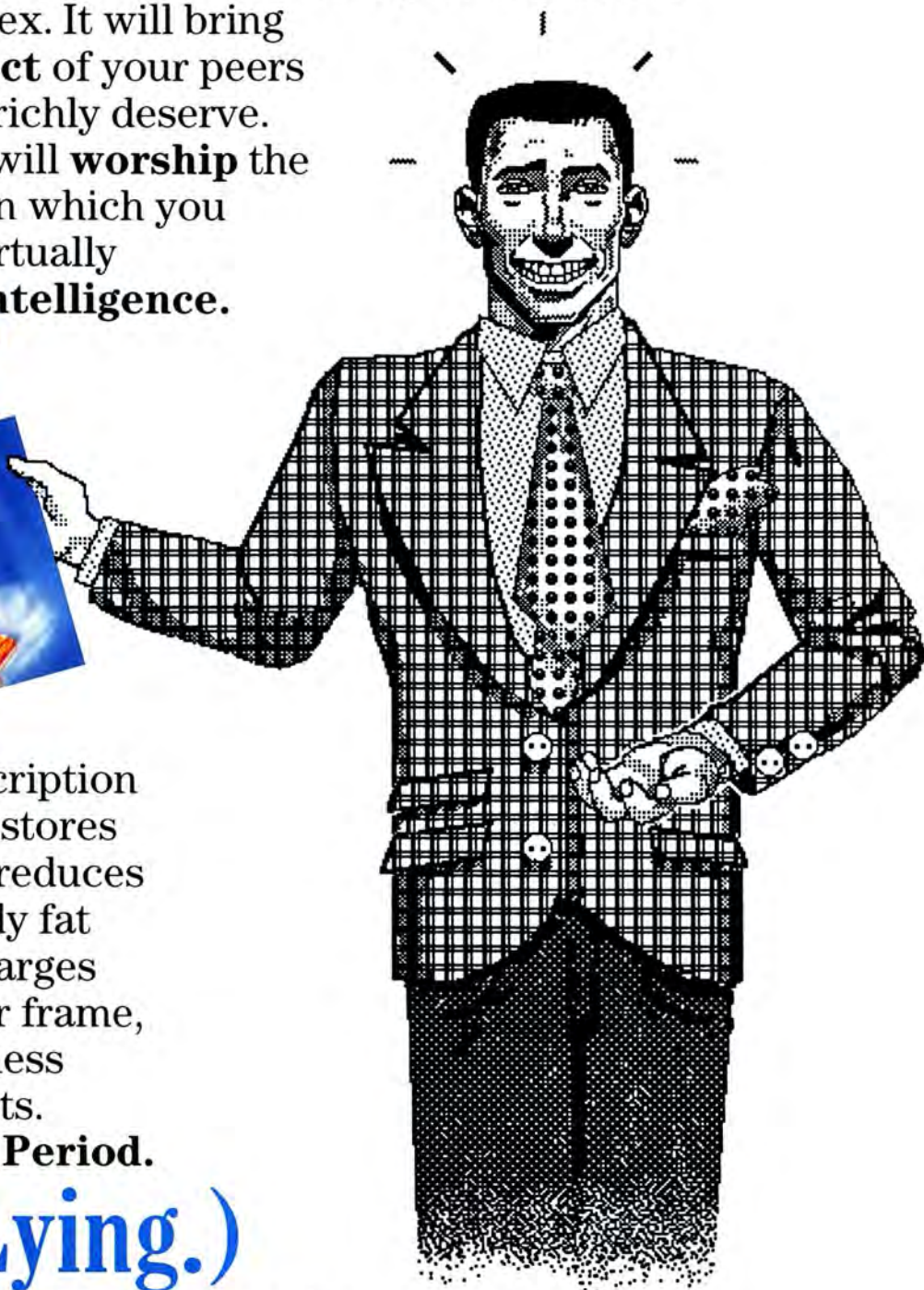


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enough Mac owners start buying this software there will be enough profits for all. And, as far as gaming goes: If you've never played a computer game you are missing out on one of the best things for which you can use a computer.

So, here's my call to action: Please buy a copy of *Smash Hit Racquetball*. Buy a few, they make swell gifts. Let's send the software industry a clear and loud message: We will reward the manufacturers who place the best interests of the consumer forward. We certainly *do* want cheaper software prices and you *can* be successful with such a marketing scheme.

By the way, I do not have any interest in the company that markets *Smash Hit Racquetball* nor do I know any of the people involved. The above is simply my own feeling and is really from the heart.

**GRIPE OF THE MONTH**

How many warranty cards and registration cards have you filled out? If you're like me, it's become almost a sort of ritual. You open the software package, you pick the post card up from the floor where it fell and then you scrawl your name on it and send it in.

But why?

I used to think it was so a concerned manufacturer could send you news, updates and assorted goodies.

So far, out of the hundred or so cards that I have sent in, I have not heard from more than three or four companies.

Central Point Software sends me a note about every ten days asking me to upgrade to the latest version of Copy II Mac. Microsoft once sent out a new version of BASIC as a surprise gift.

What happens to all those cards? Why do the manufacturers want them if not to contact their customer base with updates or news as to how to get updates?

Have all those forests died in vain?

**<CRASH> GASP! ACK!!**

This is the second time that I have written this editorial. It's not that I enjoy work.

My HD-20 crashed. Boom. I might have been able to save things but compounded the situation with stupidity and lost it all.

The last time I had backed it up to floppies was two weeks previously. I learned my lesson, which is:

*Hard disks are evil, malignant intelligences sent from another planet solely to torture and demoralize the unsuspecting Earth folk.*

Hey, I could be wrong but back up your hard disk today anyway.

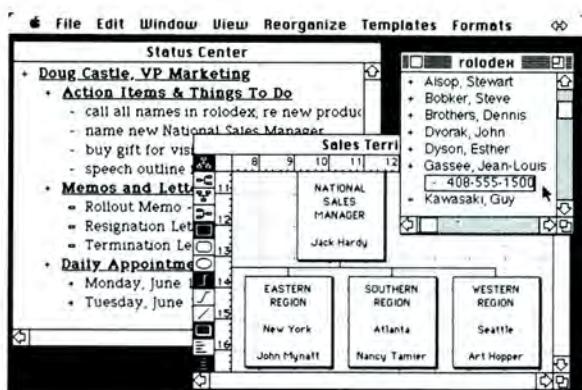
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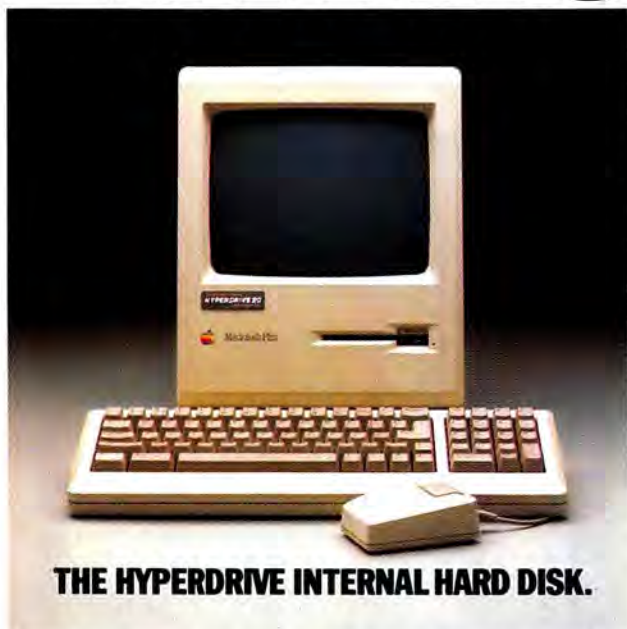
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Which should more than satisfy anyone's need for speed. Unless, of course, you need something "lightning fast," which is how Macworld described HyperDrive 2000.

This internal hard disk system also includes an additional microprocessor and a floating-point processor—turning the Macintosh into an authentic number-cruncher. In fact, a Mac with HyperDrive 2000 can perform computations from 10 to an astonishing 250 times faster than a Mac Plus.

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But sheer speed aside, what distinguishes all HyperDrives is the software they're equipped with. Which you can learn more about by consulting the ad on the right.

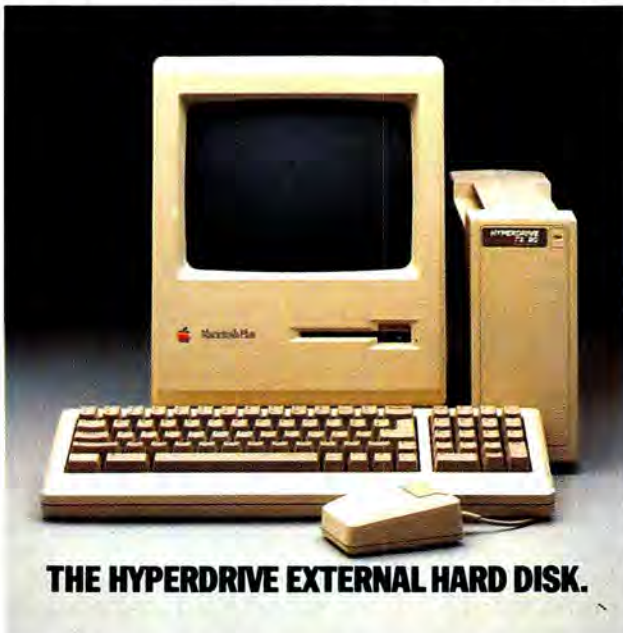


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# HIGH PERFORMANCE FOR EXTROVERTS.



The FX/20 and FX/40 are the most outgoing members of the HyperDrive family.

They spend their time on desktops, in the company of other office tools, and connect directly to the Macintosh's SCSI port.

The resulting Macintosh is extremely fast, which will come as no surprise to anyone familiar with HyperDrives. (If you aren't familiar, see the fourth paragraph of the ad to the left.)

Nor is it surprising that our FX series is extremely accommodating, providing a vast 20 or 40 megabytes of storage.

The real surprise, at least for those familiar with external hard disks, is all the software the FX comes with.

Such as a program that protects your documents by making back-up copies of them onto diskettes.

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Still another program automatically queues up documents for your printer. So you can proceed on to other jobs without having to wait for the printer to catch up.

In short, no other external hard disk does everything that HyperDrive FX/20 or FX/40 does. Which is a distinction it shares with the internal HyperDrives on the left.

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MindSight instantly calculates 28 common business computations — such as linear regression, standard deviation and moving averages. More complex computations, such as amortization and depreciation, are also calculated through simple subroutines.

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InfoWorld Magazine  
"4 disk" rating

"MindSight is a powerful combination of mainframe capabilities and Macintosh functionality. All told, the biggest challenge you face with MindSight is fully exploiting its potential."

MacWorld Magazine

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Steven Bobker

We're always happy to hear from our readers (well, almost always), so keep sending your comments to *Letters to the Editor*, MacUser, 25 West 39th Street, New York, NY 10018. We reserve the right to edit any letters that we print.

### STURM UND DRANG

I am a bona fide Macintosh enthusiast and as such I feel I owe it to all other MacPersons to let them in on a business practice that must give Thunderware, Inc. a nice piece of change. The scenario is as follows:

Unsuspecting dummy (me) decides that his Mac would not be complete without ThunderScan. I go out and purchase it. Shortly thereafter, I buy a Mac Plus with an ImageWriter II. Now I am informed that in order to use my ThunderScan, I have to shell out \$95 to upgrade my initial purchase. Now I know why they call it a Mac Plus. The Plus is for companies like Thunderware. DICK STOTT  
ALBUQUERQUE, NM

*Actually, it's \$99. But it's not for a software upgrade, it's for a Mac Plus power accessory, if that makes you feel any better. And it could be worse. If you had originally bought ThunderScan to use with an ImageWriter I, you could have paid \$45 for a hardware (scanner) upgrade, plus a \$25 software upgrade to move the ImageWriter II—and still have the power accessory to get when you upgraded to the Mac Plus. Thunderware says they've done their best to keep up with Apple's hardware changes, and to make any changes available to existing users as inexpensively as possible. They also send update information to all registered users whenever necessary. The company describes themselves as "tied to Apple's bumper," so you can see they don't think things are so easy for them, either. By the way, I hope you have all the right cables; they're \$20 apiece.*  
— LK

### FIGURE 2 IS STILL MISSING

In your article "You Can Take It With You" (August '86), there is mention of a Figure 2 which contains the pinout for the RS-232 on a Radio Shack Model 200. As I have both a 200 and a 600 (which probably has a similar pinout), I'd really like this information. And since wanting information is why I subscribe to *MacUser*, don't you think it would be nice to supply the missing diagram?  
LAWRENCE I. CHARTERS  
FPO, SAN FRANCISCO

*We do indeed, and sorry to have taken so long about it! Apparently you (and all the other readers who wrote in about the diagram) weren't the only ones who couldn't find the by-now infamous Figure 2. All is not lost, though; check the "Hints and Tips" section of this month's desktop productivity supplement.—LK*

### AND FURTHERMORE . . .

I couldn't believe your response to the fundamentalist complaints you published in your last issue concerning artwork in the July issue. Your reply reminded me of 7-11's response when the right-wing contingent took *Playboy* off their shelves. Since this type of pig-headed approach seems to get results, I have decided to use this tactic myself. To wit:

Dear Editor:

As a liberated person of the '80's I am deeply disturbed by your illustration of what are obviously prudes in your July issue. What's more, they have very big heads, much larger than any I've ever seen. This was apparently done to satisfy the purist interest of noggin-philias.

Therefore I am beginning an immediate boycott of your magazine. Later, if I can get bus fare to Connecticut together, I will picket your offices and homes. If you are as scared as I would like you to be, you will immediately direct your art department to run nothing but pictures of nudes and Macintoshes with the plastic case removed. Then, and only then, will I and my nationwide organization (of two) resume buying and using *MacUser*.

Jokes aside, I want to see the best work of your art department, since they are the best in the biz. Don't muzzle them to satisfy a few disturbed readers.  
CHRIS HEILMAN  
S. NORWALK, CT

### MAXIFINDER

Quite often I re-read old *MacUser* magazines. I was wondering if you published some sort of index which lists information concerning products, tips, etc., and what issues they are located in. I find it extremely time-consuming and annoying to have to search through all my old *MacUser* copies to find one article or piece of information.  
MATTHEW SCHMUKLER  
LAWRENCE, NY

*You'll be glad to hear that we're one step ahead of you on this one. A *MacUser* index is being put together as I write this and you'll be seeing news of it very soon. — LK*

### NO APPLAUSE FOR CLAPP

Too bad. Doug Clapp. Sentence fragments—choppy thoughts. Idea: stop using Madison Avenue trash as a style guide. Another: try Doug's *Word Tools* on "What's Hot—What's Not" article (October '86). Fear: *Word Tools* thinks "W.H.—W.N." is the best thing ever written. Ugh. No train of . . . thought. No focus. Weak material? Lousy style.  
CARL J. MADSON  
MELO PARK, CA

You explain to irate letter writers that July issue's use of cartoon females couldn't be sexist because the art department is all female. But in the very issue you're saying this in, the "What's Hot—What's Not" (October '86) article illustration has five male, no female hands going thumbs up and thumbs down.

Meanwhile, the article was terrible. Doug Clapp is trying to be cute and/or profound. What he wrote was arch and obscure. Whatever information he had was buried in sophomoric gesture.

Clapp seems very knowledgeable. Let him relax, and as they say, "let the material speak for itself." And let him omit paragraphs like, "The great. The good. The bad. The hot. The not. The cool. The cold and wicked. The unsung."  
The yuk.

*MacUser* really has been the best of the computer magazines—good graphics, well written and edited. Hope October was an anomaly and not a sign of things to come.

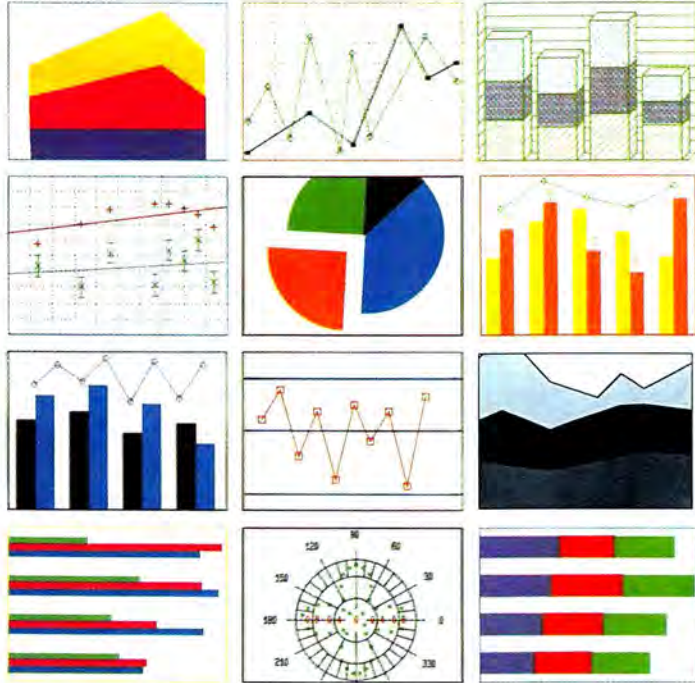
JUDY SEIGEL  
NEW YORK, NY

Doug Clapp deserved Mac enthusiasts' respect for his book *Macintosh!* The latest article he has written for *MacUser*, however, is in the style of a poor man's Mickey Spillane, but much sloppier, more arrogant and flippant. In "What's Hot—What's Not" he said in three pages what could have been said in a paragraph. As a matter of fact, all of the information I got from it was in the two picture captions. What a disappointment. Sorry, I can't take him any more.

Nor Dvorak: Anton, yes; John, no. There are thousands of users like myself with feet planted on firm ground who need good, solid information, facts and figures. We don't look for cloud nine, spaced-out sarcasm or gurus.  
JAY ROWE  
RANDALLSTOWN, MD

Re: "What's Hot—What's Not" by Doug Clapp in your October 1986 issue. What is definitely *not* hot is vapor-

# If your Mac can't graph like this, it's not quite Cricket.



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ware, a la *Word Tools* by (you guessed it) Doug Clapp.

I ordered *Word Tools* in June from a reputable Mac mail order house that featured the program prominently in its catalogue, complete with photo of the actual (?) product. It's nearly October as I write this and my software is definitely not in the mail.

Word is, "It's not released yet."

Definitely not hot. Et tu, Mr. Clapp?  
GARY GREENE  
GREENFIELD, MA

### CENSORSHIP THREAT

On the theory that business organizations respond to their perceptions of what their market demands, I want you to know that if I perceive that you have submitted to censorship by the feminist thought police, I intend to cancel my subscription.

By the way, I'd regret doing so. Of the Mac magazines I've seen, yours delivers the most useful information for the money.

NELSON LUND  
FALLS CHURCH, VA

*We have no plans to either submit to censorship by anyone, or to impose it on anyone. If you have any doubts, you can ask our lawyers how much of their (paid for) advice we take.—SB*

### FIRST TIME FOR EVERYTHING

I have never been moved to write to an editor before. Even though there have been many times when world events and other important issues have tempted me. However, Neil Shapiro's editorial in *MacUser* concerning the flat Mac (October '86) moved me.

I agree with you whole-heartedly that a flat-top Mac is badly needed. At our office we have a minicomputer and several personal computers. The management would not believe that the Mac is different and can be much more productive. So I had to resort to buying a Mac myself and bringing it (and the ImageWriter!) to the office every day and taking it home every night. The packing and unpacking are down to 15 minutes now. But I will be second in line (after you) to buy a flat-top version if, when, and ever Apple wises up. I have always wondered how many people there are like me who commute with their Mac every day? I am doing it because I have found it to be indispensable; I feel lost without my mouse. Thank you for speaking out.

ERIC S. LEE  
SANTA ANA, CA

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# DRAW PERFECTED

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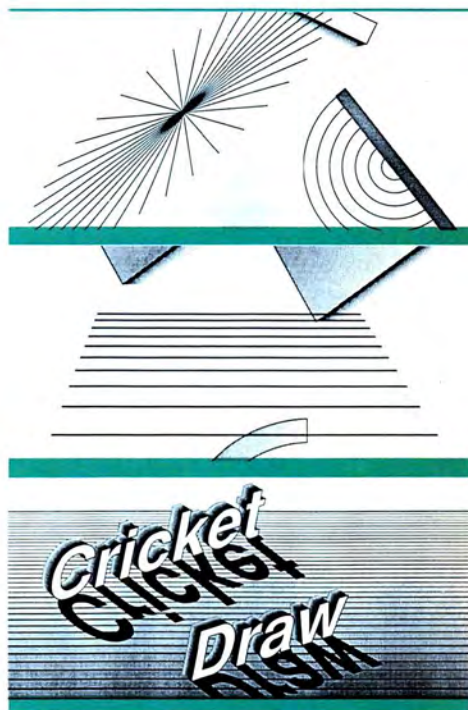
Precision drawings? How about vertical and horizontal rulers with your choice of inches, centimeters, picas or pixels? Also, you can show the measurements of any object, precisely align objects using grids or guidelines, zoom-in, zoom-out — Cricket Draw has it ALL.

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High quality graphics output on a laser printer requires knowledge of PostScript. Cricket Draw is actually a PostScript code generator. It does all the work. You never have to come in contact with PostScript, UNLESS you want to. Then you can access a PostScript window to edit or create your own code from scratch.

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# IT'S 9:30 AND YOUR 10:00 PRESENTATION IS TRAPPED INSIDE YOUR DEFECTIVE DISK.

Imagine for a moment that the National Sales manager is flying into town to listen to your presentation on next year's sales estimates. You insert your disk to make a few final changes, and your Macintosh salutes you with that well-known message, "This disk is unreadable. Do you wish to initialize?"

At this point you begin to treat the Macintosh like a little child, trying to figure out exactly where the brat hid your precious work.

Here's where it helps to bring in a specialist.

Fedit Plus is the premier Macintosh disk doctor. Fedit Plus can repair damaged disks and recover deleted files from floppies as well as hard disks. All of which prompted MacUser Magazine to call Fedit Plus, "...the most important application after the Finder."

For those who'd like a second opinion, MacWorld Magazine says Fedit Plus is, "...one of the best disk surgeons around."

No one wants to worry if their 10:00 presentation will still be there at 10:00.

With a knowledgeable doctor like Fedit Plus by your side, you can hold onto your work.

Not your breath.

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"If you own a Mac, get it"

—MacUser Magazine  
September 1986

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### THANKS, I NEEDED THAT

After reading nine issues of your magazine, it has come time to disclose to you what *MacUser* has done for me. I purchased my Mac 128 (now upgraded to 512) about a year ago. I did not know much about the Mac or what it could do, other than reproduce neat graphics and charts. I'm not sure I needed either one, but I like spending money on computers.

I bought my first copy of *MacUser* while waiting on line for a movie. A man came up to me and said he did something in art for your magazine, and asked my opinion of it. At that point, I had none, but said pessimistically that most likely it will turn out to be another *Byte* magazine, full of advertisements and not much else. Boy, was I wrong. For every page of advertising, there are 10 pages of important information. It is an excellent magazine and one I look forward to reading each month.

PAULO GLIKAS  
NEW YORK, NY

### SPELLSWELL BETTER

Your interesting article on spelling checkers (Oct. '86) didn't mention that the program's publisher, Creighton Development, has produced a utility program that deals with one of the two "major flaws" you mentioned—to my mind, the more serious one. The utility program lets you edit the supplementary dictionary, so you're not condemned to keep misspelled words that were accidentally entered. It also makes it easier to produce specialized dictionaries for various applications. When I ordered it, it cost \$5.

DOUGLAS M. PARROTT  
RIVERSIDE, CA

### SOMEWHERE ACROSS THE SEA

Every new issue of *MacUser* fills me with admiration and envy. We UK Mac users watch the software available to you in the United States like hungry lions. Do you realize how little of it ever leaves your shores? I'm a journalist and author who produced Britain's first commercial desktop magazine, *The Wordsmith*, which first appeared last January. We cater to authors, journalists and publishers who want to eat computers before they get eaten. Inevitably, the Mac is rapidly becoming the favoured computer for our readership—and without it, the magazine would never appear. Thanks for producing such a useful magazine.

DAVID HEWSON  
ASHFORD, ENGLAND





**Big Sky Industries, Inc.**  
 12345 Rondo Lane Big Sky, Montana 81765



The new products from Rondondo Lane will prove to be very significant over the next twelve months. We hope to show a correlation between the upward slope of our sales graph vs. the redoubling of our efforts to better infiltrate the garment industry.

If we can make a strong showing in the important Halloween marketplace then we will try to spread the word over a greater market segment. To help us in this matter, we recommend hiring an outside consultant. This person will help with all phases of product distribution.



If we decide to progress further in this matter, I suggest we find the best font width program we can find and use it to make our life easier. Marketing through a saturated bottleneck will prove of a pain than its worth. Assuming we can past this point, we can consider branching out into new unconsidered vistas. Among these lie tempting areas like children's clothes and Mardi Gras beads. Considering the alternatives, we must advance on this matter quickly.

As our chairman once said: "A company that follows a path can get lost, but a company that stumbles blindly in the dark is never disappointed. Remember the Alamo. We can fulfill this dream by sticking our guns, and making this company a giant of it's industry. That's all for listening.

On a similar note, progress simple curve often yields more than a linear fit of an exponential. In some cases,



# FOR YOUR EYES ONLY . . .



Subject: **FullWrite™**  
 Code Name: **Ozone**

For the past year, a small but dedicated group of crack programmers at Ann Arbor Softworks, Inc. has been hard at work on a top secret project. Our agent was able to snap the attached photograph of one of their workstations before being discovered and subsequently disassembled and recompiled. As you can see, the project appears to be a third generation document processor and is expected to obsolete all existing text based products. Rumor has it that a sneak preview will be available at the January MacWorld Exposition in San Francisco. All field agents are advised to proceed with caution to booth #911.

M2

Please circle 34 on reader service card.



**Ann Arbor Softworks, Inc.**

2393 Teller Road, Suite 106, Newbury Park, California 91320 (818) 769-8615

The prefix "Full" and FullWrite are trademarks of Ann Arbor Softworks, Inc.

# One of Man's Most Effective Communication Tools is Now Obsolete.



## Now There's a Easy Way to go from Idea to Outline in One Step!

**Take the step,** drop that blister-causing carbon tool called a pencil. Oh, it's still useful for some things, but not when it comes to organizing ideas and opinions into outlines. We respectfully submit a better way, an easier way, a way some would even call a miracle. *Voila!*<sup>TM</sup>

*Voila!* is a **Desk Accessory Outliner** that provides you with all the third generation outlining features you've been waiting for ... and then some.

With *Voila!* there is no limit to the number of Headlines, Subheads or Expander windows you may create. And you have the ability to edit fonts, sizes and styles for a single Headline, a Level, an entire Family or the entire Outline. These unprecedented editing features, combined with **Imagewriter** and **Laserwriter** compatibility, allow you to create Outlines of unsurpassed quality. *Voila!* will even print your Outlines in one of four formats: **Arabic, Roman, Standard** or **Symbol**. And on top of all this a **Table of Contents** is instantly created for each Outline.

Perhaps the most innovative feature of *Voila!* is the ability to automatically transform any word processing document into an Outline, in seconds. Business plans, proposals and manuscripts are converted into Outline format with the click of a mouse! And *Voila!* doesn't limit you to the written word. Both **text** and **graphics** may be included as a part of any Outline.

*Voila!* reads and writes both **ThinkTank<sup>TM</sup>** and **TEXT ONLY** files. It requires a Macintosh 512K or Macintosh Plus and is compatible with all hard disks. For further information, or for the name of the dealer nearest you, call Target Software toll free.



*Voila!* - Only \$99.95  
From the makers of MacLightning<sup>1</sup>

**Target Software**

14206 SW 136th Street, Miami, Florida 33186  
National 1-800-622-5483; In Fla. (305) 252-0892



# Peripheral Land, the SCSI Experts



\*RANKED #1 IN SEPT. ISSUE OF *MacUser*

\*THE PERIPHERAL LAND DISK SATISFIES BOTH THE PRICE-CONSCIOUS AND THE SECURITY-CONSCIOUS USER'

Macworld Sept. issue.

\*BACK-UP PROGRAM TO BACKUP THE HARD DISK TO FLOPPIES BY FILE, FOLDER, VOLUME, OR INCREMENTAL FILES.

\*IT ALSO COMES WITH A COMPLETE SET OF FLEXIBLE UTILITIES TO FORMAT AND PARK THE DRIVE.

\*ALL PERIPHERAL LAND HARD DISK DRIVES RUN AS A SINGLE HFS VOLUME, OR CAN SUPPORT HFS AND MFS VOLUMES SIMULTANEOUSLY WHEN FORMATTED.

\*ALL UNITS COME WITH FULL YEAR WARRANTY.

## PL SERIES SCSI HARD DISK

These are the fastest SCSI hard disks available for Macintosh Plus or Macintosh 512. The main features include plated media hard disks for long reliable use, which are 100 times harder than oxide media. The PL hard disk auto-boots either from the Macintosh Plus or the Macintosh 512/E with our Macport Plus.

**PL 20**, 21meg formatted drive/**PL 30**, 32meg formatted drive/**PL 80**, 80meg unformatted drive/**PL 172**, 172meg unformatted drive

## MacBack Plus SCSI TAPE BACK-UP

Say goodbye to floppies and hello to 22 megabyte tape cartridges. The MacBack Plus can either back-up or restore 20 megabytes in minutes. The back-up criteria can be selected by file, folder, volume, or incremental files. The MacBack Plus is available in either 22 or 60 megabytes of awesome capacities.

## MacBack Plus 20/MacBack Plus 60

## The MacFast High performance Series SCSI Hard Disk

The MacFast SCSI series is our top of the line hard disk for the ultimate Macintosh power user who demands speed from the hard disk. What makes the MacFast hard disk superior? An 8k buffer used for caching that maximizes raw data transfer

on the SCSI bus to its fullest potential. A Turbo Stream intelligent disk/tape controller that has its own Zilog Z-8 micro processor with DMA that optimizes data transfer at a phenomenal 5 megabytes nonstop per minute between the MacFast disk and MacBack tape unit.

**MacFast 20**, Formatted/**MacFast 30** Formatted  
**MacFast 80**, unformatted/**MacFast 172**, unformatted

## MacBack (OIC-02) High-performance Tape Back-up Unit

Our companion tape back-up system for the MacFast. Our exclusive Turbo-Stream Technique has the ability to back-up and restore 20 megabytes of data in a blistering 4 minutes. In the 5 megabyte volume mode, MacBack will back-up or restore in exactly one minute, incredible but true. This is the fastest tape back-up unit available today for the Macintosh.

## MacBack 20/MacBack 60

## MACSTOR Series

a 10 or 15 megabyte removable SCSI hard disk subsystem for the Macintosh Plus and the Macintosh 512K. This reliable removable Winchester cartridge provides unlimited capacity while providing complete data security. It can also be used as a back-up device instead of a tape. MACSTOR. When security and unlimited capacity is a must.

**MACSTOR 10** a 10meg removable drive.  
**MACSTOR 15** a 15meg removable drive.

## MACPORT Plus Auto-booting SCSI Adaptor for the Macintosh 512 and 512/E

Here's where Peripheral Land expertise really shines. An auto-booting SCSI adaptor for the Macintosh 512 or 512/E requires the new 128k rom. This easy, convenient upgrade provides full SCSI compatibility with our hard disk or any other SCSI hard disk. Now, you can boot directly from the hard disk, just like the Macintosh Plus without the expensive price tag.

Macintosh Plus, Macintosh 512, and Macintosh 512/E are trademarks of Apple Computer, Inc.



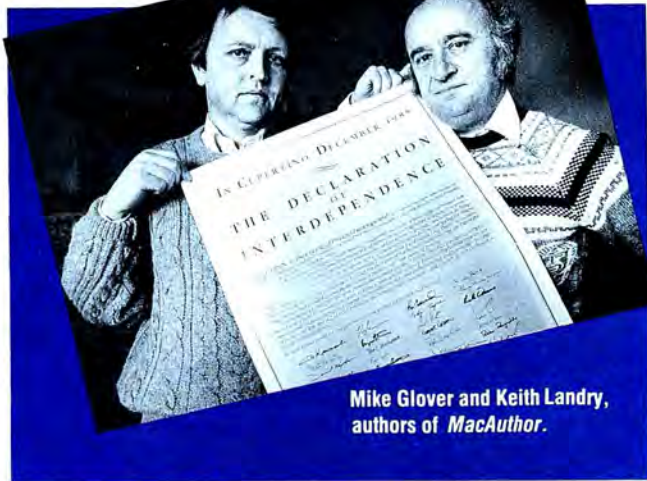
**Peripheral Land**  
3677 Enochs Street  
Santa Clara, CA 95051  
(408) 733-7600

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# NEW ON THE MENU

## A BIG MAC AND A PEPSI

With all the new Apple commercials on the tube these days, looks like the Macintosh is picking up a freebie in print. Look for the Visa ad with Pepsi-Cola's president Roger Enrico. It features a tropical outdoor setting, Enrico's new book, a can of Pepsi and a Mac. Despite the fact that Visa's ad agency is the same as Apple's — BBD&O — the Mac wasn't part of the initial design. It's legit, though; Enrico says he always takes his Mac along when he travels — even on vacation. Nice placement, too. Right in the middle of the picture. You can't miss it. — LK



Mike Glover and Keith Landry,  
authors of *MacAuthor*.

## TALES OF WORD PROCESSING I

The much talked about, long-awaited *MacAuthor* word processor (we're talking about the one from England, not the one from California that has recently been released as *WriteNow*) should finally come to market.

On its way, it has had several name changes and some fairly significant functional changes.

At various times, it's been called *MacAuthor* (that's the name it's sold under in England, the land of its birth) and *LaserQuill*. There were apparently trademark problems in the United States even with a name like *LaserQuill*. It's now going to be called *Laser Author*, a name the distributors say is final.

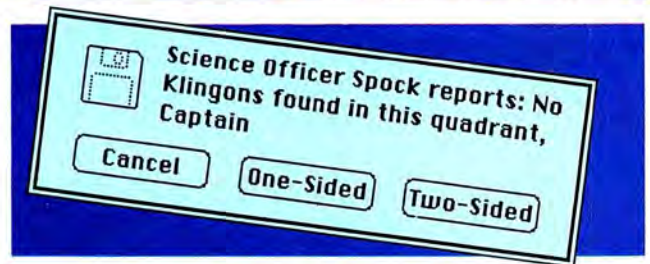
This program breaks some new ground in integrating advanced technical word processing and simple page layout. It promises to be a superb report generator — a tool that many managers have been crying out for. The very ambitious program design of *Laser Author* has led to some teething problems, but the final few have been worked out during the last few weeks by developer Mike Glover and his team in England. For current information, you should contact the U.S. distributor, Firebird Licensees, Inc., PO Box 49, Ramsey, NJ 07446. Their phone number is (201) 444-5700. Firebird is a subsidiary of the giant British Telecom.

By the way, contrary to published rumors, we've been informed that *Laser Author* will not be copy protected.

We're eager to bring a full review of this program (notwithstanding the fact that our publisher is English), and will as soon as it's released. — SB

## DIALOG BOX OF THE MONTH

This dialog was submitted by Thomas Wideman of Searcy, Arizona. Thomas ran into it while returning to the *Finder* after exploring the universe with a public domain program, *Star Trek* (written by Hari Dass Khalsa). Looks like Thomas' Mac is slightly spaced-out. Seen any



unusual dialog boxes lately? Share 'em by sending them to

MacUser Dialog Box, 25 West 39th Street, New York, NY 10018.

## RUMOR MANAGER

The traditional software categories are breaking down rapidly. 1987 will see many products that fall into either entirely new categories, some not even conceived yet, or some amalgams of several older categories. For example, forms processing should become a major category of its own. Forms processing combines traditional databasing, drafting and forms managing categories and more. Several really hot new products are already being tested, including at least one sure blockbuster. . . . An entirely new hard disk technology will be introduced soon. Known as the

"hover disk," the ball-shaped product holds more data than traditional disks of the same size and is nearly totally impervious to shock. At the moment, the tiny stabilizing and speed-control jets around the edges of the platter are using nitrogen gas. That's a problem. However, the developer feels a working, albeit very expensive, model will be available by mid-summer. Reasonably priced units are 18 months off. . . . Much prowling around recently failed to uncover the rumored cheap personal laser printer. In fact, rumor had it that it was the victim of the recent surge in the value of the yen. Too bad. . . . Some dealers have reported

that Apple is planning to institute a new formal dealer training program. Seems adverse comment here and elsewhere has stung them. (Anyway, bravo to Apple, if they do it). . . . The Macs and ImageWriter II's used as cash registers in the Apple Company Store cost Apple less than any real cash registers. What does that say about higher manufacturing costs and prices? (By the way, the Macs run *Double Helix* as their cash register emulation program). . . . A simple, reliable 40-meg tape back is undergoing final testing. Its neatest feature is the ability to do an automatic, unattended backup (say at 2 AM every other day).

And it should be very competitively priced. . . . All the major Mac magazines will be rating programs by early 1987. . . . That explosion of hot programs written in Texas is nowhere near peaking. 1987 is going to be a banner year for Texas programs and programmers. . . . Amiga proponents have been claiming that Amiga sales spurted when the IIGS was announced. They claim the spurt was in reaction to the price of the IIGS, its relative lack of power (it's not the IIX Woz dreamed of) and its relative unavailability in 1986. While real sales figures have been hard to come by, the Amiga is looking a bit rosier.

## A GOOD DAY IN COURT

One of the most serious problems that software designers have had to face is the question of copyrighting ideas. It is one thing to own the rights to a finished product, but how do you prevent someone from stealing the basic concept, changing it slightly and coming out with their own "clone" at a much lower cost? Until recently, the industry has had to face the fact that ideas could not be copy-

righted and software lookalikes abound.

Well, the developers won one for a change. In a decision whose impact might reach far beyond the software industry, Broderbund software won a lawsuit filed against a competitor of its *Print Shop* software. Broderbund claimed in the suit that the competitor had copied the menus, displays and general structure of *The Print Shop*. The competitor held the standard

line that these elements of a computer program are not specifically protected under copyright law unless the program is a video game.

The U S District Court decided that the "user interface" of non-video game software is protected under the Federal Copyright Act. What this means is that someone who sweats blood designing a program can now claim copyright for the "look" and "feel" of a program as well

as the code itself. This should provide at least a measure of security for the many Mac developers we know of who are pounding away in secret trying to bring an innovative product to market before the competition.

Now all we need to make things complete is a decision favoring the consumer — one that makes software publishers accountable for the quality and functionality of their software. — MDW



## TALES OF WORD PROCESSING II

November finally saw the release of *WriteNow*, which was once the other *MacAuthor*. This program was started before the Mac was released, and its long, long gestation is a true indication of how hard it is to write Mac word processors. A good indicator of this program's original intent and pedigree can be gleaned from the filetype (the four-character name that Mac's operating system knows programs by) of *MacWrite*: MACA. Looks suspiciously like the first four letters in *MacAuthor*, doesn't it? In fact, the original *MacAuthor* was slated to become the Mac's first word pro-

cessor, only to be beaten out by the upstart *MacWrite*.

Time passed (as it has a habit of doing), and *WriteNow* is finally available. It can best be described as strongly enhanced *MacWrite* with a built-in spelling checker. It has the simplicity and ease of use of *MacWrite*, and adds some power in addition to the spell checker. It seems to be a nearly perfect first word processor for most Mac buyers. If you can't wait for our upcoming review, you can obtain more information from T/Maker, 1973 Landings Dr., Mountain View, CA 94043, (415) 962-0195. The price is \$175. — SB

## BRICKBATS AND ROSES

Microsoft recently took the major step of removing the copy protection on *all* of their Mac products. Thus, the new Microsoft *Works* will not be protected, nor will the forthcoming *Word 3.0*. The current protected products will be unprotected in their next versions.

Microsoft deserves a lot of applause for this new policy. It recognizes the maturity of the Macintosh and its users, and further recognizes that copy protection has no place in serious business software.

Now that Microsoft products will no longer be protected (a policy that I hope many other publishers will adopt), it's up to you to make the policy work. Don't participate in software piracy and don't condone it.

It's really good to see the industry leaders taking these pro-consumer positions. It would be nice if all the rest of

the industry followed or, better yet, went further. After all, without consumers, where would these companies be?

On the down side, there are two types of companies that have been around for a while, but are never talked about. I'm talking about the "public domain" software exchanges and the software rental companies. Both types of companies have legitimate purposes and could be valuable and respected members of the Mac community. But so many of them are run in ways that make you wonder exactly what they're doing.

The "public domain" exchanges seem reasonable enough on the face of it. They provide all that great software to those who don't want to bother with modems and electronic services and bulletin boards and their costs. They also serve those who can't or

don't want to join a local users group, or whose user group doesn't provide the software. That's reasonable.

**It's up to you to make a no copy protection policy work. Don't participate in software piracy.**

What's not reasonable is that much of the software offered isn't, in fact, in the public domain, and these companies often don't care. A lot of the software could be distributed if the author's permission was obtained, but that virtually never happens. In some cases, an exchange just gets a collection, and without regard to the rights of the authors or original offerer, resells it at a lower price.

Some of these companies try to get around the "no commercial resale" copyrights of many programs by claiming that they are real user groups. That's a spurious argument. Have you ever heard of a real user group that has never had a meeting, a newsletter (the catalogs are not news), or any function other than to collect and distribute software? Also, the average price per disk, while not high, is considerably above that of legitimate user groups. However they describe themselves, these organizations exist to make a profit by selling software. And there's nothing wrong with that, as long as the rules are followed and no one's rights are trampled in the process.

Another major problem is that much of the better software is offered on a feeware or shareware basis. While it would appear that feeware authors

would benefit from the widest possible distribution, that's not the case here. Yes, it's true that all the catalogs mention that some software is shareware and requires an extra fee, but the warnings are never prominent and are often placed away from the software listings. Many feeware authors have reported a distinct reluctance on the part of people buying from these companies to pay more for the software since they feel they've already "paid" for it.

**It bothers me that a lot of ads offer not only rental software, but copy programs and blank disks.**

Several things need to be done here. The companies *must* obtain permission for all the software they offer. Sure, it's a pain, and it will reduce the

number of offerings, but it's necessary. A lot of the stuff that's out there shouldn't be, and this simple step will go a long way towards eliminating it. The other thing that must be done is that shareware must be identified in the listings using whatever language the authors want. No more weak statements buried at the bottom of the page.

The software rental companies pose a completely different problem. They perform a valuable service: that of letting you try before you pay out a lot of money for something that doesn't work and that you can't return (all companies aren't as enlightened as Hayes and a few others). If I had tried out all the software I've bought in the last two years I'd have an extra hard disk or two, rather than a lot of unused disks and manuals.

One problem is that software rental is probably not "legal" according to the terms of the onerous licenses and "agreements" that are a part of mod-

ern software marketing. However, as I haven't been able to uncover any instances of publishers trying to enforce these agreements when the rental companies violate them, I'm not going to worry myself about this point, and I don't think you should, either.

Still, it bothers me that a lot of the ads not only offer rental software, but copy programs and blank disks. Who is fooling who? I'm sure that all these companies send out "no copy" letters and warnings, but if there's a great offer for *Copy II Mac* and blank disks in the same package, it seems sort of hollow.

What these companies need to do is to not sell blank disks (there's no dearth of sources), not sell or rent copy programs (they all work; there's no need to "try" one out); and protect the manuals they send out, possibly by overprinting pages so they can't be photocopied. That won't solve all the problems, but might at least remove

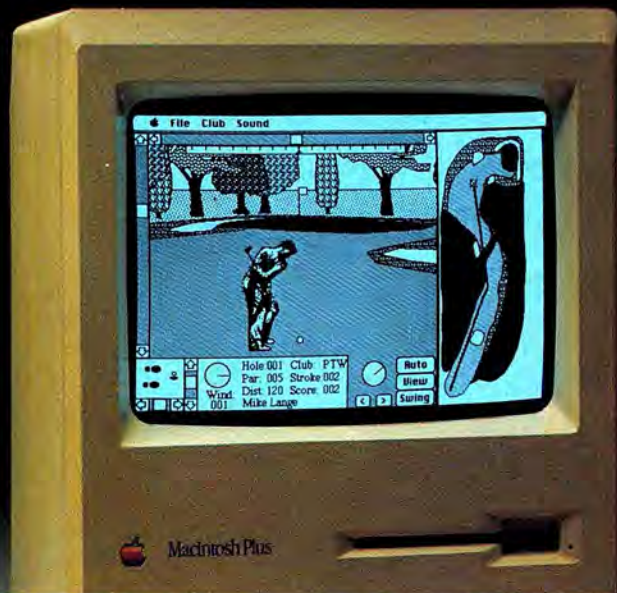
blatant temptation.

On the mail-order front this month, we have some important news. In response to the volume of complaints we've received about Northeastern Software, we've stopped accepting and publishing their ads.

Our mail has made it clear that Northeastern has had problems in the past year. For a while, it looked like they were improving, due, in part, to *Mac-User's* efforts. That helped the minority of people who took the trouble to complain to us as well as to them. The situation seemed to be improving and the number of complaints we received dropped way off. However, the volume has picked up dramatically again, so we felt it in your interests to accept no further ads.

From our viewpoint, Northeastern does not appear to have engaged in any wrongdoing. They simply seem to be a classic case of a small company that expanded too rapidly. — SB

Stop Press: Just as we went to press, we learned that Northeastern Software had sought protection under Chapter 11 of the Bankruptcy Statutes.



# The MacGolf™ Challenge.

Sit down, boot up and find yourself surrounded by the sights and sounds of the fairway — with MacGolf, the premier simulation golf game for Macintosh™ users.

MacGolf challenges beginners and experts with 3-dimensional animated

golfers and graphics, realistic (digitized) sound effects, and two 18 hole golf courses. Up to four people can play.

MacGolf works on a 512K or Macintosh Plus and costs only \$59.95. Get MacGolf at your nearest dealer

today. Or call Practical Computer Applications at (612) 427-4789.

## MacGolf™

Macintosh is a trademark licensed to Apple Computers, Inc. MacGolf is a trademark of Practical Computer Applications, Inc.



# Introducing FileMaker Plus.

Now, the only Mac database ever to get both *MacUser's* and *InfoWorld's* highest ratings does even more, with even more ease.

Humble, ordinary-but-necessary forms like mailing labels, purchase orders, invoices, credit memos or packing lists. Pain-in-the-rear forms like expense reports and insurance inventories. Hard selling forms like proposals and quotations. Indispensable forms like phone messages, address books and sales contact records.

Filemaker™ Plus lets you do these any way you want, or does them for you if you want. An extra disk full of templates gives you a whole set of typical formats, so all you have to do is fill in the blanks.

And in addition to doing what a database is supposed to do — calculations, summary reports, sorting — FileMaker Plus does everything you wish a database would do. View multiple records on a

screen. Pull information from different files together. Include graphics in your fields and reports. Print mailing labels 3 or 4-up, or more.

Your information takes much more human form. It makes more than sense. It makes an *impression*.

With FileMaker Plus, you can put information *in* any way you want, without arbitrary limitations. It automatically indexes every word, number and date. You design your output right on the screen, so you can see exactly what you (and your clients, staff, suppliers, publishers, board of directors) are going to get.

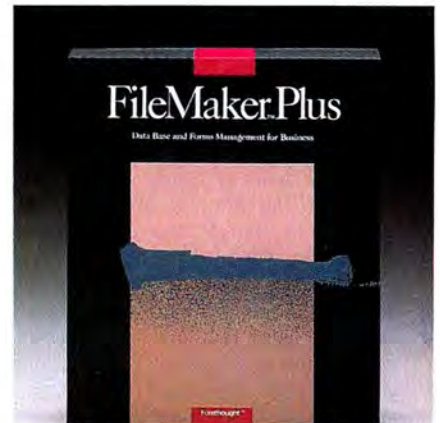
You can exchange information with other programs, like MacWrite™, MacPaint™, MacDraw™, Microsoft® Word and Microsoft Excel. You can share applications or formats you've created with other members of your team, or consolidate group efforts into one database. And FileMaker takes full advantage of the Macintosh™ family, including the Mac Plus, Mac 512, Imagewriter and LaserWriter.

So, for a mere \$295, you can watch as your data takes on all kinds of interest-

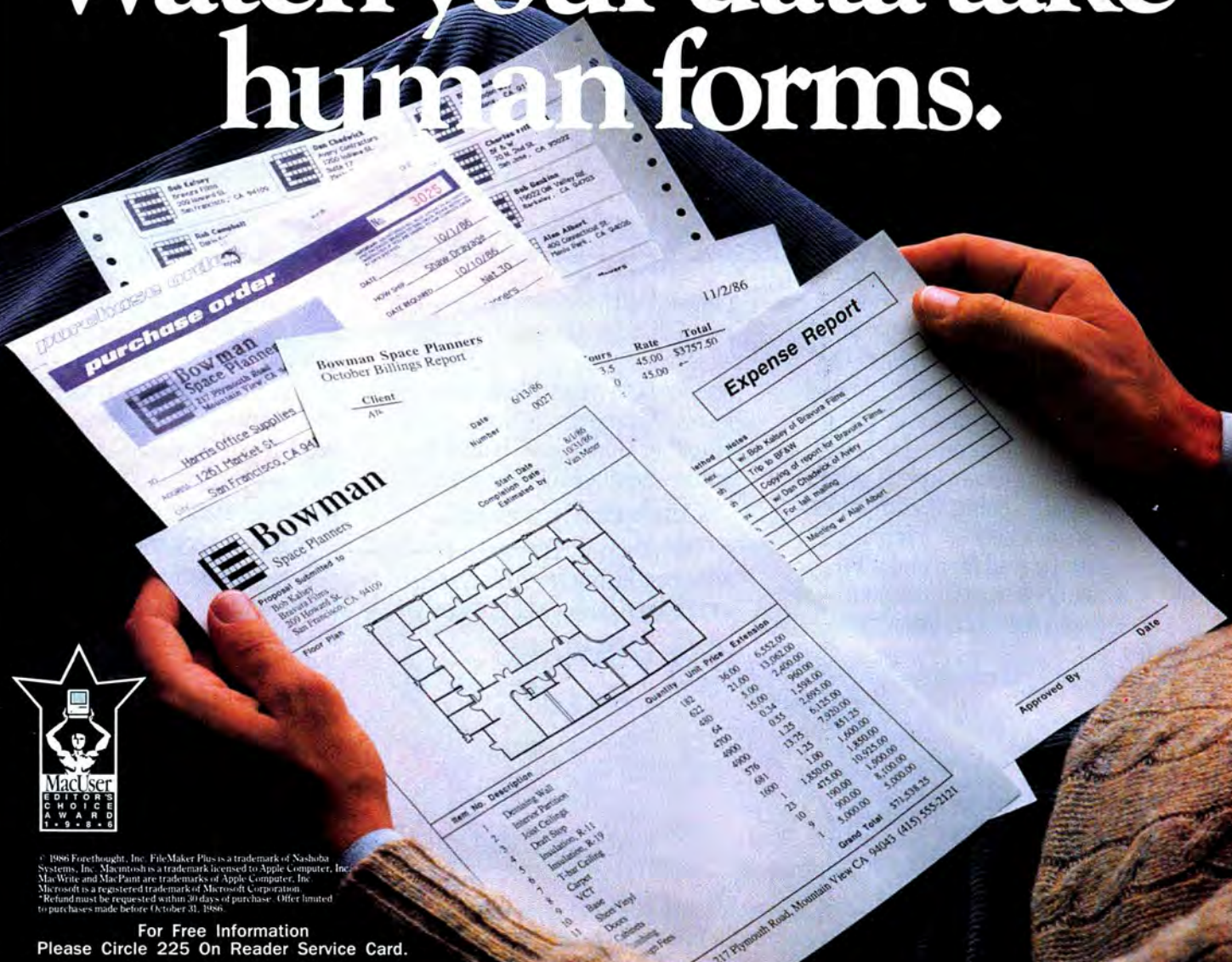
ing and profitable new forms. Call 1 800 MACWARE today for the name of your nearest dealer.

**We guarantee it.**

If FileMaker Plus doesn't completely fulfill your expectations, call 1 800 MACWARE and we'll solve your problem or arrange a refund.\* From Forethought, Inc.



# Watch your data take human forms.



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**UPDATES**

Do you have the latest versions of your programs? Most programs indicate what version they are when you look in the About . . . choice at the top of the Apple menu. If your version isn't the latest, contact the publisher about possible upgrades. Look for addresses in our Mini-Finder section. A special note on Apple System software: If you have a 512K or larger machine and don't have *Finder 5.3/System 3.2* see your dealer for a free upgrade. If you have them but didn't get new printer drivers and new Control Panel and Chooser DAs, see your dealer at once. You need them! Apple System software upgrades are free at dealers as long as you bring your own disks.

Here's our list (as of press time). — SB  
 Acta 1.1  
 Aztec C 1.06h  
 Back to Basics 1.03  
 BatteryPak 1.23

Click/On Worksheet 1.3	Mac Disk Catalog II 2.1b	PageMaker 1.2
ColorChart 1.3	MacDraft 1.2	PictureBase 1.1
ConcertWare+ 3.1	MacGolf 2.0	Quartet 1.1
Copy II Hard Disk 6.0	MacLabeler 2.2	QUED 1.51
Copy II Mac 6.0	MacLightning 2.0	Quickset 2.0
Cricket Graph 1.0B	MacPaint 1.5	Rags to Riches 2.6
Crunch 2.0	MacPublisher II 2.7	ReadySetGo 3.0
DiskInfo 1.43	MacServe 2.1	Record Holder 2.1
Dollars & Sense 1.4	MacSpell+ 1.1	Red Ryder 9.4
Easy 3D 1.01	MacTerminal 2.0	Resource Editor (Resedit) 1.0.1
Edit 2.0d1	Mac Tools 6.0	Resource Editor (Redit) 1.2
Excel 1.03	MacWrite 4.5	Sidekick 1.1
ExperLISP 1.5	MeasureTest 4.7	Silicon Press 1.1
ExperLogo 1.1	Megamax C 1.42	Slide Show Magician 1.3
Factfinder 1.1	Microphone 1.0	Smartcom II 2.2B
Fedit Plus 1.0.7	Micro Planner 1.1	SpellNow 1.0
FileMaker 1.0	Micro Planner Plus 5.7	Spellswell 1.2d
FileMaker Plus 2.0	MORE 1.00A	StatView 512+ 1.0
Finder (128K only) 4.1	MS BASIC 3.0	StatWorks 1.2
Finder (all others) 5.3	MS Chart 1.00	System (except 128K) 3.2
FONTastic 2.7	MS File 1.02	Switcher 5.1
Fontographer 2.1	MS Fortran 2.1	Tempo 1.1
Gato 1.42	MS Word 1.05	ThinkTank 512 1.3
Hard Disk Utility 1.28	MS Works 1.0	Thunder! 1.0
Helix 2.0	r11 Multiplan 1.1	ThunderScan 3.2
InTalk 2.1	MusicWorks 1.1	TML Pascal 2.01
Jazz 1A	myDiskLabeler 2.11	TMON 2.585
Just Text 1.0i	Omnis 3 3.10.MAC	Top Desk 1.4
Lightspeed C 1.02	Omnis 3+ 3.21	TurboCharger 2.0D
MacDraw 1.9	OverVUE 2.0d	Word Handler 1.6
MacBase 1.0	PackIt III 1.2	ZBasic 3.02

# Infocom introduces four new games

Infocom,™ the crazy people who brought you "Zork"® and "The Hitchhiker's Guide to the Galaxy,"™ has a habit of coming up with games that add a new dimension to interactive fiction. And the best keeps getting better. Case in point: "Leather Goddesses of Phobos."™ It has a scratch n' sniff card and a 3-d comic book to excite all your senses. Once your interest is

piqued, you'll embark on a rowdy romp through the solar system. This hilarious spoof of 1930's pulp science fiction has 3 "naughtiness levels," for the prude to the lewd. "Leather Goddesses" is sure to amuse members of either sex.

**One's really warped.**

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## TALES OF WORD PROCESSING III

The big two in the field (*MacWrite* and *Word*) haven't lain fallow, either. Last month we let you know what to expect from Microsoft. From what we've seen and heard, *Word* 3.0 is right on schedule. The one rather major change is the price. This top-end product is going to list at \$395.

Assuming that the development continues at its present pace and we can get final copies in time to satisfy our editorial review criteria, we'll have full coverage of *Word* next month.

Apple is also planning to enhance *MacWrite*. The new version had neither finalized specs nor a set release date as of press

time. But *MacWrite* owners can expect an upgrade by 1987.

The plan appears to be to keep *MacWrite* owners up to date with the current state of the art, while avoiding adding features that cause *MacWrite* to compete directly with the new generation of word processors. There are a lot of satisfied *MacWrite* users out there and Apple aims to keep them that way.

Finally, any hopes *Word* 3.0 had of claiming the entire top end of the market for itself seem to conflict with SSI's intention of bringing *their* top end word processor, *Word Perfect*, to the Mac, real soon. — *SB*

## IF THE NAME FITS, SUE THEM

Here's some news *The New York Times* didn't print — maybe it didn't fit. You may know Infocom as the publisher of the ever-popular *Zork* series, the *Enchanter* series, *Hitchhiker's Guide to the Galaxy*, etc., etc. They also publish a funny and

informative newsletter, until recently called *The New York Times*. Guess who threatened to sue them if they didn't change the name? So *The New York Times* is now *Status Line*. Why not *The New York Post*, I wonder? — *LK*

## THE EARS HAVE IT

Finally, the Macintosh add-on we've all been waiting for — fur. P. C. Beast and the magic of velcro lets you add furry ears and a tail to your computer, making it, according to the manufacturer, more user-friendly. It is not quite clear what kind of creature results from this hybridization, but I'm planning on calling mine Ralph. \$29 from Fundamental Design Group, 154 Magazine St., Cambridge, MA 02139, (617) 354-5715. — *LK*

## IT'S IN THE BAG

Innovative Technologies scored a direct hit on the Mac market early on with the Easel, a folding pouch for storing disks, then followed with a disk directory notebook, plastic disk cases and other accessories. Their latest product is the Speed Pad, a mouse pad with a very smooth and fast surface that speeds mousing operations over most other pads. But a product is in the works that could really "take off" for Innovative — it's called the Propeller Bag. Based on the



nickname "propeller heads" given to computer nerds some years back, the Propeller Bag is a soft attache that carries almost everything you could ever need. It has separate pouches or storage places for disks, a calculator, manuals, notepads, pens and pencils, and much more. The case is made of a tough black nylon, similar to the material used in many Mac carrying cases. It should be in your local store right now, at a price of \$60. — *MDW*

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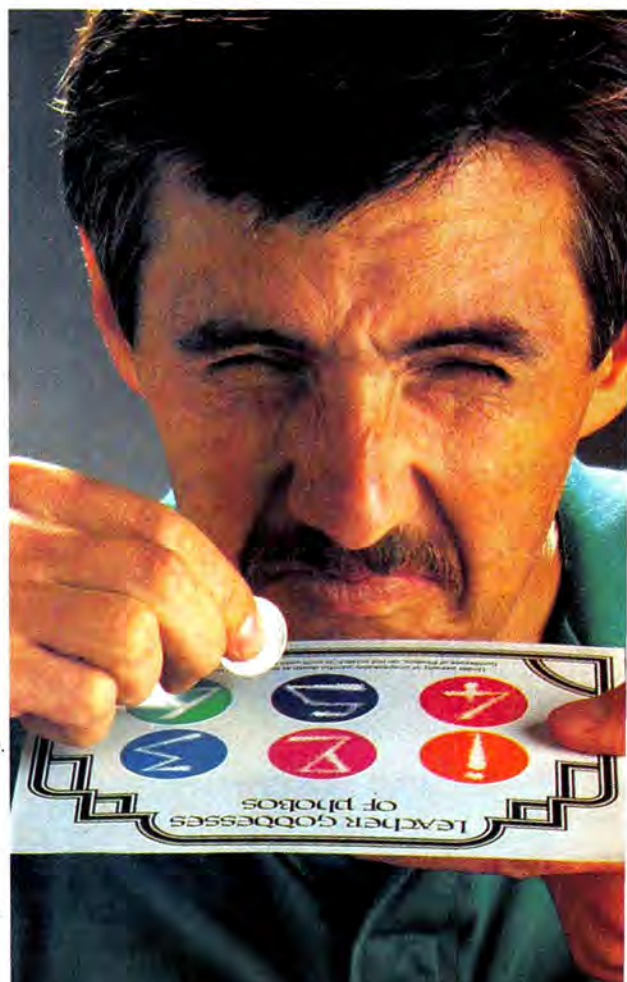
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# SPRINGBOARD





by Michael D. Wesley

## BEHIND THE SCENES

The crowd masses as you wait, perhaps ten minutes, perhaps an hour or more. The roustabouts who built the elaborate kingdom you are about to enter scurry from place to place, putting the finishing touches on the fantasy. The harried, anxious players are making last-minute arrangements, checking their props and sets. An electric charge builds within the crowd as you wait expectantly. You are there hoping to be surprised, enlightened, entertained. You might even be one of the fortunate few present at the birth of a new phenomenon.

The opening moments are touched with magic. After hundreds of hours of planning and preparation, after thousands of pounds of sets and equipment have been shipped and assembled, after people have gathered from around the country and around the world—the doors are finally opened to admit anyone with a ticket. The crowd presses you forward and thrusts you, head first, into the world of the Macintosh trade show.

As you walk through the cavernous exhibition hall—whether with an organized course in mind, or at random—you are drawn into a carnival where the barkers beckon you to explore the unknown. They call to you in voices loud and soft, harsh and genteel, profound and profane. And you go, willingly, knowing up front that you are there to be sold to, hoping to gain enough information to ensure that your purchases are sound.

If you know how to work a trade show to your advantage, you can easily recover the price of admission through discounts on products that are displayed, or the savings in time and energy that come when you find a product that answers a crying need.

What consumers and observers may not realize is that many of the important events at trade shows occur off the floor, away from the booths and away from the public eye. Deals are cut, lawsuits are threatened, editorials are privately criticized and information is passed that may not become public knowledge for some time.

Although the trade show that inspired this column took place in October, it might still be soon enough to let you in on some secrets divulged behind the

scenes. Lurking in the wings are two new products, both astounding in scope and quality if the final versions live up to their early promise.

Step with me behind the curtain, but — let the reader beware. The products mentioned were not finished at the time I saw them and may not be when you read this. While I have permission to talk about them, they remain unannounced products so I will keep some details in shadow so the companies won't be accused of the dreaded "vaporware." Think of these as rumors....

### BEHIND CURTAIN NUMBER ONE

I went to the futuristic Hyatt Regency Hotel, quite some distance from the convention complex, deep in the heart of downtown Dallas. I was invited to see a new product from a company heavily involved in the Macintosh market, but not previously known for consumer software. I had no idea what to expect.

I wasn't sure at first whether I would be seeing hardware or software, but it turned out to be a rather dynamic example of the latter—a piece of software designed to fill a rather significant hole in the desktop publishing/presentation graphics arena.

The demonstrator pointed out that while the Mac has proven to be a fabulous tool for many graphic applications, artists and designers alike would admit its shortcomings in the area of line drawing. Although images can be drawn by hand and scanned in with ThunderScan or another digitizer, it often takes more time to clean up a scanned bit-mapped image than it would take to create it in the first place. And, even laser-printed images are often too rough to use in professional quality publica-

tions. Line drawings and similar artwork are still being done by hand, sent out for color separation and offset printed, even in publications that are otherwise assembled completely on a Macintosh system.

The demonstrator proceeded to show me a sophisticated line drawing tool. The process begins with a digitized image of an existing picture or a sketch for a new piece of art. Instead of using a paint program in fat bits to clean up the Macintosh version, the artist or designer uses some impressive computer drawing tools to trace an outline of the scanned image.

This outline becomes a template which can be easily altered. It can be filled with various patterns, shades of gray or colors (only for printing, of course), it can be skewed or it can be rotated around any point. Because the tracing is done as a collection of objects, any single element, including text, can be treated in the same way.

The screen display is not generated as a normal Macintosh screen. Instead, it's generated by PostScript, the page description language that drives the LaserWriter and a variety of other laser printers, and Linotronic typesetting equipment. What you see on screen may not be an exact representation of what will be printed because the program has to deal with a 75 dot per inch screen. Text which has been rotated looks strange on screen, because the characters are displayed upright along a slant. When printed out, PostScript will print the text correctly in any orientation.

Unlike *Cricket Draw*, which brings some of the power of PostScript to the user in an easily accessible way, this program—code-named *Picasso*—is intended to serve as a high-powered Post-



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Carlos Suarez  
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Script tool for artists and graphic designers. The professional designer invited to see the product when I did was floored by it and thought that *Picasso* would be a tremendous asset in his work. This looks like a winner and should be announced at the Macworld Expo in January.

### "I'LL TAKE WHAT'S IN THE BOX"

What's in the box called Macintosh that really hasn't been touched yet is a word processor of unparalleled power. Since the Mac was introduced, we have been clamoring for a word processor with automatic indexing, the ability to search and replace based on character attributes (such as font and style), style sheets, automatic footnoting and much more. What we have seen so far are largely just variations on *MacWrite* that tried to incorporate extra features found in Microsoft *Word*. We haven't yet seen the range of features found in power word processors on lesser machines.

However, don't despair. Besides the long-awaited revision of Microsoft *Word* that is expected soon, there is another word processor of astounding abilities awaiting its debut.

The specs for this program read like a wish list. Files are automatically indexed and you can link files together. The program can handle multiple columns and column widths on a page and text flows automatically from column to column. It has automatic footnoting and footnotes are automatically updated. A scaled down version of *MacDraw* is built into the program for graphics. Pictures can be embedded within text and text will automatically flow around a graphic of any shape or size.

"Post-it" notes can be attached to text and the program can search any portion of a document—such as notes, footnotes or headers—independently or as a whole. You can also search and replace any character or word based on its font, style, size, even justification.

The program stores revisions, so it lets you change your mind and go back to an earlier version of the text.

This new word processor is very fast because the CPU is always working. For instance, when you search for the word "Macintosh" in a document, the CPU starts looking as soon as you type the M, narrowing its search as you go along.

I hope that both of these programs can debut soon, and that still more incredible software is on the way. As developers begin to understand the power of the Macintosh and how to tap into it, there should be much more excitement to come. ☐

▶ "The Macintosh legacy has only just begun."

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"Right. And now Apple's coming out with an open architecture machine. The possibilities seem endless."

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▶ "Then there's MaxPrint™ — a print spooler that works! No one could believe there was such a thing, let alone that we were giving it away with all our Max memory expansions."

"And you know, we're still doing that. But it has become so popular, we've made it available on its own. MaxPrint is selling bundled with MaxRAM™ — both programs for under \$50."

"Maybe that's why it's the best-selling print spooler."

▶ "Desktop publishing is a perfect example of the new generation of Macintosh applications that require more memory to really perform. With our memory products, it takes less time to complete a project."

"Actually, it's less *waiting* time — more *working* time."

"You can get a lot more accomplished."

▶ "Customer support is easy when you have good products. It's easy, for instance, to offer a full two-year warranty on all our products. We've developed a philosophy of going out of our way to keep our customers happy."

"What it boils down to is that when you have a problem you want a solution."

▶ "When we developed the MaxPlus, we knew we had the best 2Mb Macintosh Plus expansion possible."

"But we also knew that hardware was only part of the solution. So we made it into a whole hardware/software system. We included MaxRAM and MaxPrint software so the user could put that memory to work. And added the MaxChill."

"That means the Macintosh Plus could be more reliable *with* our product than without it."

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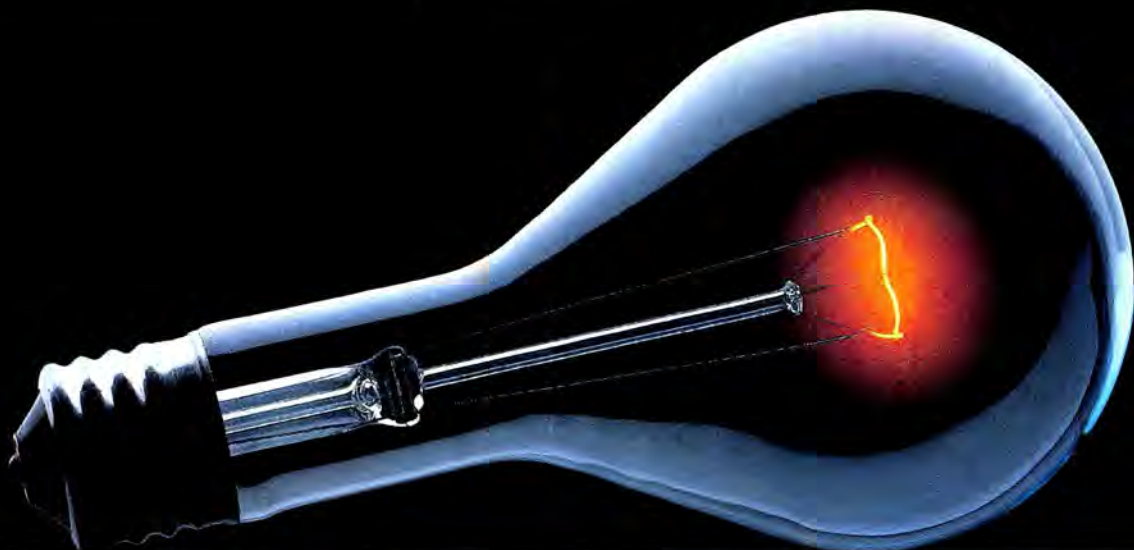
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by Doug Clapp

## XANADU IN THE FOG

I love to buy strange old books. My favorites are travelogues written in the late 1800's and early 1900's. Things like *A Trip Down the Congo*, and *Travels in the Turkish Empire*. That kind of stuff. Journeys to Xanadu. I've never been to Xanadu, but yesterday I was at Microsoft. Lemme tell you about it.

First, there's a comparison that can't be avoided. The house that Jobs built versus the house that Gates built. They're different houses. Jobs, the visionary former hippie college drop-out turned wildly successful salesman. Gates, the Harvard-educated programmer turned wildly successful businessman. No, make that "shipwright." Microsoft builds ships to sail on oceans dredged and filled by Tandy, IBM, and Apple. Maybe that imparts a touch of humility, or a dose of reality — assuming the two are different.

Then there's location. Apple commands Silicon Valley. Intel is across the street. The air is sweet with stock option money; the parking lots of Cupertino are littered with BMW's and Mercedes.

Up north in Redmont, a Seattle suburb, Microsoft is lost in the fog. I wore my favorite gray cardigan to visit; Seattle responded with a gray pullover with a hood. They say that the city is ringed with mountains. I didn't see 'em. I did see Microsoft's parking lots. Fords, Toyotas, and Honda Civics. Carpoolers get the good stalls.

Inside, it's quietly busy. Unlike Apple, where many (most?) employees work in cubicles, here people have offices; real offices with doors and windows. Not big or fancy offices; small, neat offices: a desk, an IBM (or Compaq), a Macintosh.

Other differences are more subtle. Microsoft seems more studious; less frenetic. More facts, less hype. And, although Apple has trimmed management, Microsoft seems leaner. Whenever I called Marty Taucher, Microsoft's Public Relations chief, I imagined offices of "Marty's minions" — a slew of PR people, laboring over press releases, announcements, mailings, and events. It turns out that Public Relations is Marty Taucher, Sarah Charf, and Public Relations Assistant, Coby Cressey.

This, for a company with 1986 revenues of \$197,514,000. So I promise not

to bother Marty unless I really gotta.

Product management is handled by Product Managers. One product, one Product Manager. Young, bright over-achievers. Nobody smokes. Mostly MBA's, but few blue suits. Each is responsible for, well, everything, it seems, involved with getting the product made, released, and promoted. A staggering workload for one person. I wouldn't want to work that hard.

But still, you know, it's Microsoft. They can do anything they want, anytime, right? They can afford it, right?

But it's not that simple. I said "I'd like to see templates for *Excel*. I'm a naive spreadsheet user. Anything over 20 cells makes me nervous."

They could do that, right? Sure. But, as I learned, it's a question of money, people and — most important — time. What's best for Microsoft? Write templates or do a new version of *Word*? Update *File* or redo *Lisp*? Work on *MS-DOS* or *Windows*? Write add-on programs or invent new applications?

To top it off, each manager fights for resources: programmers, staff, money. There's only so much of everything, no matter how big the company. Great programmers don't fall from trees. When you're involved with as many products as Microsoft, you've got to be smart about what to do, when to do it, and how much to commit. Like they say: "If it was easy, everybody'd do it."

One area that gets resources is telephone support. The support machinery is a thing of beauty. Microsoft supports about sixty-five products.

Everything from Xenix COBOL to Softcard for the Apple II. Imagine. Calls get routed, fast, to the best person to help; and the system is designed so it's likely the first person you get is the "right person" to help.

The numbers that result from this are staggering. For example, take the week ending September 9th, 1986. Microsoft fielded 5,600 calls that week — for Macintosh products alone!

So what's new at Microsoft? These days, it's Microsoft *Works*. Sales are great. It's not a glamour product, but it's clean and fast and useful. A bread-and-butter product. Nice. And it's one of those rare products that wasn't devel-

oped "in house." Instead, Microsoft *Works* was written by the people that wrote *AppleWorks*. Their idea was to develop *Works* then put it out on bids. Microsoft went after it and got it, despite the fact that — at least in theory — it might cut into sales of other Microsoft products. But, like they told me, "It's better to lose market share to yourself, than to somebody else." That's not dumb, I guess. Nor arrogant.

The "*Excel* story" is also enlightening. Work on *Excel* began under a cloud of *Jazz*'s impending arrival. At the time, Lotus had never failed. Apple was counting on Lotus to propel Macintosh into the Fortune 1000. Lotus was gonna spend a ton of money to promote *Jazz*. Microsoft was worried. And hungry. They knew what they wanted — The World's Greatest Spreadsheet — but were worried that *Excel* would be perceived as merely gluing together *Multiplan* and *Chart*.

Mike Slade, the *Excel* Product Manager at the time, recalls: "So we took everybody — Gates, Shirley, everybody — down to Apple to show 'em *Excel* when it was partly done. And, you know, we're demoing *Excel* to Jobs and Sculley. And Jobs is saying stuff like 'So where's the word processor? Where's telecommunications?' And we kept saying 'No, what we're doing is Appropriate Integration!'"

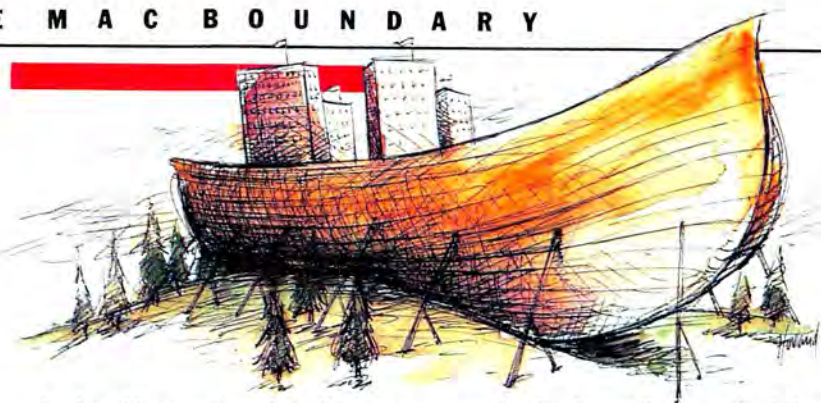
But, like the ads say, "The rest 'are history." In retrospect, *Jazz* was the best thing that ever happened to *Excel*.

And *WordPerfect* may have been the best thing that ever happened to Microsoft *Word*. On Macintosh, it's *MacWrite* or Microsoft *Word*. Since *MacWrite* has been "unbundled," *Word* has easily outdistanced *MacWrite* in sales.

But on the IBM, it's a battle. *Word* vs. *WordPerfect*. Microsoft, in a real battle at last, recently unveiled Microsoft *Word* 3.0 — a killer word processor.

Microsoft, despite being the world's largest software house, doesn't have an ivory tower mentality. And I've got a hunch they enjoy the scrap.

That Microsoft "gives good product" isn't surprising. The surprises will likely come later this year, when Microsoft proves they weren't kidding about CD-ROM technology. ☐



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\*By ANDREW GREENBERG &  
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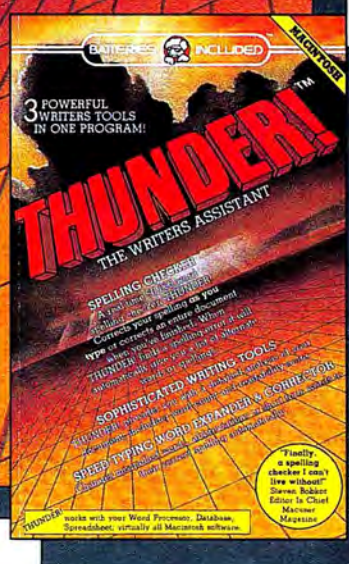


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Add Words	Yes		Yes
<b>Supplementary Dictionaries</b>			
Add/Delete Words	Yes		Not available
Edit with word processor	Yes		Not available
Maintain multiple dictionaries	Yes		Not available
<b>Learned Words (expander)</b>			
Add/Delete Words	Yes		Not available
Edit with word processor	Yes		Not available
Maintain multiple dictionaries	Yes		Not available
<b>Features</b>			
Interactive Spell Checking	Yes		Yes
Typing monitor	Smart		Smart
Check Selection	Yes		Yes
Correct Selection/paste in	Yes		No
Add word with suffixes	Yes		No
Configurable Options	18		None
Word Expander	Yes		No
One-touch correction	Yes		No
Keyboard operation	Complete		Partial
Smart Capitalization	Yes		No
Statistics display including word, sentence, paragraph, syllable count, readability indexes and more	Yes		No
Suggestions for misspellings	look alike/sound alike		place in dictionary/sound alike
Disk Space required	140K		353K
<b>Compatibility</b>			
MacWrite™	Yes		Yes
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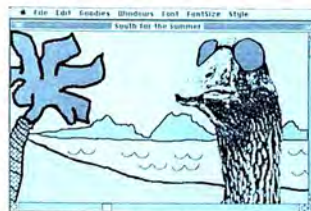
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# QUICK CLICKS



## TURBOCHARGER 2.0 rev. Dttttt

List Price: \$69.95. Published by Nevins Microsystems, PO Box 1249, Capitola, CA 95010-1249. (408) 479-0860. Not copy protected.

Sooner or later you are going to do some repetitive chore on your Mac, and because it's repetitive, you're going to get tired of disk drives and watching icons. This is a computer you're using, shouldn't it learn what you're doing and do this task faster? Yes, and the way it does is via *TurboCharger* 2.0, a RAM cache utility for 512K and larger Macintoshes that's better than the new Apple Control Panel's RAM cache. It works on most hard disks and Mac XLs. In fact, it's the best way to speed up XLs, and no XL owner should be without it.

A RAM cache is a section of memory that stores information a program once needed and had to get from its disk. The first time you use the disk in a program, the cache is empty, and no improvement results. Further "disk accesses" that request information stored in the cache are "shortstopped" and do not go to the disk, resulting in very substantial time savings. Any program you use that heavily accesses the disk — like

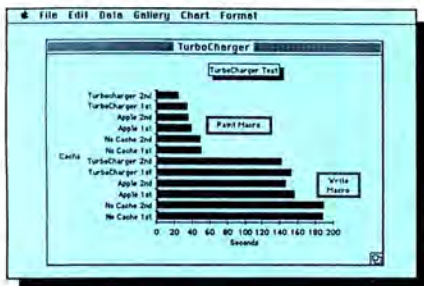
*MacPaint* — is dramatically improved by a RAM cache.

To see exactly what the time savings were, I created two *Tempo* macros, one for *MacWrite* that repeatedly reformatted and saved a single page letter; and one for *MacPaint* that opened, closed and pasted between two *MacPaintings*. Each macro was run twice under no cache, only Apple cache of 192K, and only *TurboCharger* cache of 192K, conditions. Each pair was run three times, rebooting between pairs, to provide an average time; and each macro started and stopped at the desktop.

The *MacWrite* macro, without a cache, took 189 and 190 seconds. With the Apple cache, it took 157 and 147 seconds. With the *TurboCharger* cache, it took 154 and 143 seconds. Not an appreciable difference, but measurable. For *MacPaint*, with no cache, times were 51 and 50 seconds; with Apple's cache 40 and 36 seconds; and with *TurboCharger*'s cache 35 and 25 seconds. For *MacPaint*, *TurboCharger* the first time was better than Apple's cache the second time, and *TurboCharger* the second time was twice as fast as no cache at all.

*TurboCharger* assigns the size of the cache by an independent *TurboControl* application that uses either a preprogrammed library of optimum values for 44 popular

programs, user-set options, or an adjustable default value. User-set options, as a start, are recommended to be the same size as the *Switcher* partition. "Tuning" of the cache size to vary performance is easily done. De-tuning was done in this test to set a cache size equal to the first Apple size larger than the optimum size from the library.



*TurboCharger* 2.0 is a 15K system file, which works with *Tempo* and ram disks, if desired; but severely limits the available memory to *Switcher*. To use *Switcher*, either have a lot of RAM, or turn *TurboCharger* off. Which is one other nice little thing about it. It tells you when it's off. The *TurboCharger* icon on the menu bar (a user-selectable indicator) is gone. — Michael Tollefson

## LISTEN ttttt

List Price: \$69. Published by Imaja, PO Box 638, Middletown, CT 06457. (203) 347-5909. Copy protected.

Ear training, the development of musical pitch recognition, has traditionally been a rather tedious affair of a teacher playing notes, chords, and melodic fragments while the music student writes down approximations of what was heard. While some are blessed with a golden ears and perfect pitch (see *Amadeus*), for most of musicians developing music dictation skills is a bit of an ordeal. Sound familiar? Then *Listen* up.

*Listen* is a full-featured ear training program for the beginning through advanced musician. It presents a video piano keyboard and guitar fretboard that are played with a one-finger cursor. Using the built-in four-voice Mac sound generator, *Listen* generates randomized drills on notes, phrases, intervals, chords and inversions. If you have a MIDI interface and keyboard or expander module, you can play a real keyboard (or MIDI guitar, etc.) and/or hear the exercises using the external MIDI sound source, in addition to the built-in voices.

The drills consist of *Listen* playing the exercise and then waiting for the student to select the note(s) that were played. While

the exercise is playing the cursor is ear-shaped; when you respond, it becomes a hand with a pointing index finger. The cursor is used both to point to the response note(s), and to instantly display the results — whether right or wrong — by turning into either a happy or sad face. If the correct response is made, the program moves to the next exercise. Otherwise, the exercise is repeated until you get it right. *Listen* remembers the exercises that were incorrectly answered and re-drills them more



often. A control window displays a bar graph with hits and misses percentages that gets updated with each exercise.

The program has a wide range of options. *Listen* allows each student or teacher to tailor the drills in terms of key signature,

range, the pitches to be drilled on and the rate at which they are to be exercised. So, you could select melodic and interval drills from any scale, in any register. *Listen* also has several user-selectable levels of difficulty. The student can select key, notes, range and speed of the exercises. In many ways, you're left on your own to create a lesson plan. Rhythmic dictation exercises are not provided in the present version of *Listen* but are planned for a near future release.

*Listen* gives the student both a video keyboard and guitar fretboard to use during the drills. Either one or both can be used during a session for the exercises, making it handy for those who wish to translate between two musical mediums. You can use the video key/fretboards with a "No Exercise" option which lets you fool around and load different sounds. Within the limitations of the Mac sound generator, some of the supplied sounds are great.

*Listen* is friendly and easy enough to use to almost be fun rather than "educational." Otherwise tedious musical training has been presented as an enjoyable game. *Listen* can be recommended to anyone interested in honing their musical ability, from the novice or the dedicated amateur, to the professional who wants to brush up, painlessly. — Peter Mengozio

# Identical Twins?

## A TOUCH OF GLAMOUR

"The Look of Love"

European Edition Winter #10, 1986



Jayme Dancer, 19, from Palm Springs, California. A newcomer to modeling, Jayme is available for shoots throughout Europe. In this photo, hair was done by Adrien of West Hollywood, makeup by Richard Casades of Beverly Hills. Jayme is represented by the American Model Consortium. For additional information, contact them in Los Angeles.



Janes signed a three-year contract to represent the Arnio line of active wear clothing. Darcy Lee is rumored to be in the running for the

lead in a major film being produced in France. The Japanese market is hot again. Look for a line of new cosmetics to be unveiled early next year with a well-known model from the '60s hawking them. On the other hand, times are looking tight in NYC. Too many people are not enough work. (more "gossip" inside)

**About this issue . . .**  
 The Latest Looks From L.A.  
 Blondes are HOT again!  
 Safe Cosmetic Surgery  
 The secrets you must know  
 The Look & Sound Of Rock & Roll  
 Today's Eurorock influence  
 Takin' Care Of Business  
 Keeping track of your money  
 What 1987 Has In Store For You  
 Some startling predictions

As we go to press for our fourth year, we've decided to do a little experimentation with our format. Because of our weekly circulation, we can't include photos like we do in the monthly version, and still give you the timely information you need. Some recent advances in computer hardware, however, have made it possible for us to incorporate quality photos and drawings that will keep you even more current with the fast-paced fashion world we work in. We are very interested in your feedback on this new approach.  
*Eric Donner, Editor*



This looks like a promising season for new filming in Europe. Several studios are planning productions in France and Ireland. Get your reels in order now. Things look encouraging for 1987.

### OF SPECIAL NOTE

Deadline is fast approaching for this year's Contempo Festival 87 in Paris.

### COMMENTARY

Somehow, it seemed oddly appropriate to sum up 1986 by holding an open forum about what we thought were the highlights and lowlights. This week (and since I'm the editor), I thought I'd go first. And, over the next few weeks, I'll be looking forward to receiving comments from you and will bring them up in one of the issues early next year. I don't know about you, but 1986 was characterized by a peculiar lack of one thing: innovation. Any type of innovation at all. For some reason that still eludes me, every designer seemed to be taking (cont. page 4)

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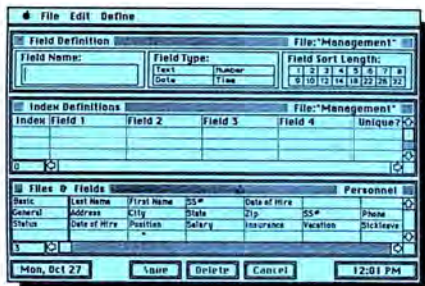
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# QUICK CLICKS

## MACRELAX ††

List Price: \$99.95. Published by Arrays, Inc., 6711 Valjean Ave., Van Nuys, CA 91406. (818) 994-1899. Requires 512K. Not copy protected.



MacRelax is a peculiar program in many respects. It is billed as a relational data base manager, but it isn't exactly that. It bends over backwards to be easy to use and sometimes confuses the user as a result. It seems to be quite powerful in some respects and remarkably limited in others. What MacRelax appears to be is a relational list manager, and the key question is: why would anyone want a relational list manager?

A list manager is a specific type of low-level data base application. It stores infor-

mation in a tabular, column format making it easy to manage lists of names, addresses, etc. A list manager is essentially a computerized index card system. It doesn't have a lot of power in managing extensive amounts of data, it isn't very flexible in the types of data it can handle, and its form generation capabilities are usually fairly limited.

MacRelax takes this concept and turns it sideways a bit. A MacRelax data base is a collection of from one to eight files. Each file is an individual collection of data stored in fields. There is a maximum of 16 fields per file. A record, which in a typical data base consists of one complete listing, such as one person's personnel data, is somewhat difficult to define in the MacRelax schema, because related files may have parts of a record in more than one place.

For example, the tutorial in the MacRelax manual takes you through the creation of a personnel data base. Some of the data, such as name, address and phone number end up in one file, while date of hire, Social Security Number and other bits go into a second file. These two files are linked by the social security field. Classified information such as salary and bonuses are in a third file.

In everyday data base parlance, these files would actually be lists within a file,

which is why the terminology of MacRelax sometimes gets confusing. The manual is a necessary tool to get started. Once you understand its organization, however, MacRelax is very easy to use. It does have on-line help which varies from the useless to the moderately helpful.

Because the various list files are all kept under one data base umbrella, MacRelax is very flexible in the handling of list-based data. You can pull data from various lists into a single report, which does not have to conform to the table style format. MacRelax offers both alphabetical and numeric indexing for quick sorting.

MacRelax is a bit weird in concept, and it has some very strange aspects. While the name of a field (Last Name, First Name, etc.) can be fairly long, the space allotted for field names in the display is fixed to a length of about 10 characters. As a result, many field names are chopped and only a portion of them is seen. This happens in several areas of the program.

MacRelax might be very useful for someone who does nothing more than handle long lists and who needs to keep some parts of a list separate from the rest, but it seems overpriced for what it does. The oddball nature of its design makes it more trouble to learn than the results justify. — MDW

## MACINUSE †††††

List Price: \$49. Published by SoftView, 4820 Adohr Lane, Suite F, Camarillo, CA 93010. (805) 388-2626. Version 1.0 reviewed. Not copy protected.

MacInUse is a deceptively simple program that could be one of the most valuable assets to your software library. The simple part: MacInUse tracks the amount of time spent working in an application and saves the information as a text file. Once installed, it works in the background and quietly records the amount of time your Macintosh is tied up by an application. This record can provide the documentation you need in order to deduct your equipment costs at tax time, give detailed breakdowns of time for client billing or help track employee productivity.

A simple installation program places MacInUse on any disk. MacInUse automatically kicks in on startup and records whatever application is in use. When you close the

application, a new dialog box appears asking whether the use was personal or business in nature, and provides a space for a detailed comment, such as details of projects or the names of clients for whom work was being done. The time record and comments are saved in a text file that MacInUse automatically updates after each usage.



In a floppy based system, MacInUse should be installed on every System disk. Hard disk systems are much easier. Just install MacInUse once and it records every-

thing you do from startup to shutdown. MacInUse is compatible with MFS, HFS and all Mac variations.

There are some applications that give MacInUse trouble, particularly Switcher. If you run two or more applications under Switcher, MacInUse will record the time only as time spent in Switcher. Other program that cannot be tracked include games or any programs that perform a shut-down operation on quitting and applications that bypass the Finder.

MacInUse data can be accessed by any program that reads text files, which means most word processors, spreadsheets and data base programs. Templates are included on the MacInUse disk for MacWrite, Word, Multiplan and Excel, and there is even a predefined Excel macro on the disk that takes MacInUse data and charts it automatically.

MacInUse is incredibly simple but can save you many times the purchase price. It might just be the best \$49 you'll ever spend. — MDW

## TASS TIMES IN TONE TOWN †††

List Price: \$44.95. Published by Activision, 2350 Bayshore Pkwy, Mountain View, CA 94043. (415) 960-0410. Copy protected.

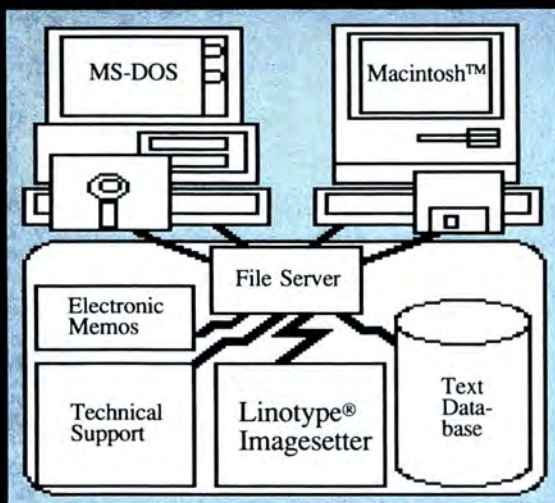
Before you undertake any adventure, you usually need certain basic paraphernalia to

ensure a strong start. This usually takes the form of weapons of some kind, spellbooks or armor. Tass Times in Tone Town may be the first one that requires you to get a trendy haircut — not to mention a new jumpsuit and a "hooplet."

Tass Times is a graphic adventure with what seem to be punk overtones. In search for your missing grandfather, you follow the

dog, Spot, through an electric hoop. (I'm sorry; that's the best description I can come up with.) On the other side, you find Spot can not only talk, but has changed his name to Ennio. So much for tradition.

Tone Town citizens take clothes very seriously. So seriously, in fact, that if you don't get duded up pretty quickly, you're branded a "tourist" and insulted at every



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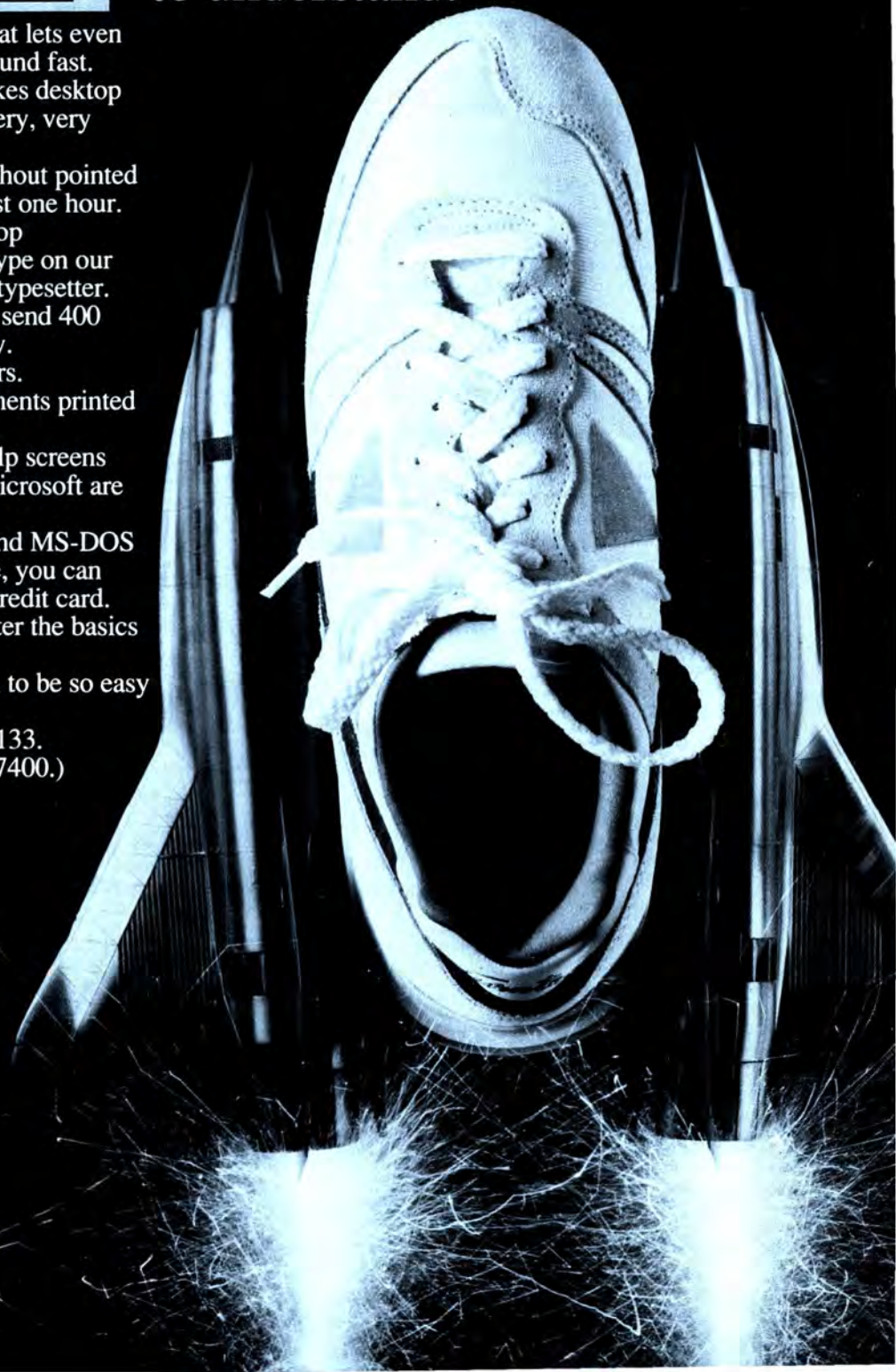
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# QUICK CLICKS



turn. It's obvious you're not in Florida.

The plot of *Tass Times* is not particularly new: it's your basic find-it-get-it-and-get-out story, although Snarl may be the only master monster who's involved in a real estate scam on the side. Most of the gameplay takes place through on-screen iconographics, but typing is required from time to time. Double-clicking on an object picks it up and transfers it to inventory, and a compass is provided for clicking off in the right direction.

Once in a while — actually, more often than you'd like — Ennio “smells Snarl

meat,” just about his only useful skill. When this happens, it's best to head back the way you came or, better still, just wait it out. The recommended number of waits to ensure safety is 15. This is far too many.

The puzzles are pretty good, although some of them seem difficult because they don't have much intuitive appeal, such as throwing a piece of (the right) mushroom at an animated eye and ear. Or buying (and wearing) a kinky black mask.

On the whole I enjoyed the game, although there were some minor (and, I expect, easily correctable) annoyances. In

the 'tique, for example, where it is imperative that you buy a jumpsuit, the only items on the rack seem to be shirts. (Typing in your request does the trick.) Activision's press release mentions great animation, but as far as I can determine the only things animated in the Mac version are a few eyes, ears and a clock pendulum. Once in a while you get an off-the-wall response. I tried talking to Ennio and got “What do you want to ennio?” I had no answer for that one.

*Tass Times in Tone Town* is recommended mainly for novice adventurers, or seasoned pros who feel like showing off. — LK

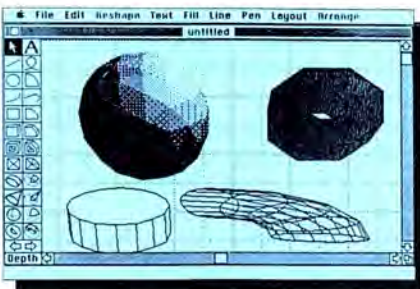
## MAC3D 2.0

List Price: \$249.95. Published by Challenger Software, 18350 Kedzie Ave., Homewood, IL 40430. (312) 957-3475. Not copy protected.

Mac3D is not a new program in these pages. Ads began appearing back in our premier issue, making many promises but ultimately not quite delivering on them. Finally with version 1.1, the program began to look and work like the power graphics program promised. The new version, 2.0, is a major improvement, with many new features and much less of the instability that plagued earlier versions.

Essentially, Mac3D is to three-dimensional drawing what MacDraw is to the two-dimensional world. Primitive objects, such as spheres, cubes, cylinders, and tori are created in one step. A wide range of editable fill pattern options, high precision editing of all of a shape's vertices, dimensioning lines and an intuitive user interface are features 2.0 shares with 1.1.

The most important improvement in this version is the inclusion of shading with up to six light sources, and full PostScript support for printing gray shades on a PostScript-equipped printer such as the Laser-



Writer. The position and intensity of each light can be easily modified, and an option allows light sources to be finely placed in space using Cartesian coordinates. The ambient light effect is also adjustable.

Mac3D 2.0 also allows users to define

custom primitive tools: a complex object made up of various parts can be placed as a single tool in the tool palette, and the tiny tool icon can be separately edited. There are also some new primitives, including a geodesic sphere and equilateral polygon. Also, any two-dimensional shape can be extruded to create a three-dimensional shape, with fully definable depth.

The program's performance has been improved dramatically over previous versions, and graphic progress meters have been implemented for long processing times, a feature that other 3D programs could benefit by.

This program has pull-down menus specifically configured for the 128K ROMs in the Mac Plus and 512E — some commands are not visible until the menu is scrolled.

Registered owners of version 1.1 can upgrade to 2.0 for \$30 fee, a reasonable price considering the many new features. Mac3D 2.0 has matured into a stable, useful program that satisfies many graphic needs. — DB

## PACKIT III

List Price: \$10, \$10 additional for printed manual. Published by Harry R. Chesley, 1850 Union Street, #360, San Francisco, CA 94123. (415) 563-2491 (modem only). Not copy protected.

Its mark can be seen on most BBS systems, public networks, and just about anywhere that a Mac telecommunicator is likely to be found. It has established itself as a standard without true competition, without the grace of expensive advertising campaigns and without elaborate marketing schemes. It's absolutely utilitarian, never bombs, is a cinch to use and is regularly updated. It's an essential utility to anyone serious about telecommunications on the Mac. It's Packit.

Currently in revision III, version 1.2, Packit offers various functions that are part of day-to-day communications life. Its main function is to electronically “glue” two or more files together to send between two Macintoshes. Many of the major communications services (CompuServe, GEnie, Del-

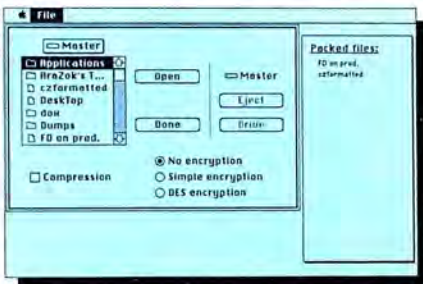
phi, etc.), as well as most public bulletin board systems (BBS) store multiple related programs and documents as single files, to facilitate uploading and downloading. Any file with a “PIT” extension is probably a Packit file.

But Packit has more talents than just putting files together and pulling them apart — which broadens its appeal to more than just telecommunications enthusiasts. It is capable of two levels of password encryption — one is a relatively standard method (a variation of the “exclusive - or” encryption), and the other based on the government-standard DES (Data Encryption Standard). DES encryption takes much longer than the standard process, but is also much harder (if not impossible) to defeat. It can compress files (using the Huffman encoding method), and also splits large files over various disks, automatically and flawlessly.

When packing and unpacking files, a progress meter depicts the percentage of the file that has been processed, as well as graphically displaying the amount of compaction. Each file is listed in a window as

it's being packed or unpacked. Specific files can be skipped over when unpacking a file.

Packit is shareware — the latest version can be downloaded from most on-line ser-



vices, and the author requests a modest \$10 fee, a true bargain considering Packit's usefulness. The manual is another \$10, although most telecommunications users can manage the program without it. All in all, this program is a best buy, and should be on everyone's list of utilities to own. — DB

# Trying to stay alive makes these programs killers.



Go where computer adventures have never gone before. But you've got to be careful.

*Deja Vu: A Nightmare Comes True™* and Mindscape's new *Uninvited™* put you in the kind of tight spots that make droplets of sweat appear on your mouse.

*MacUser Magazine* and the Software Publishers Association both named *Deja Vu: A Nightmare Comes True* the best entertainment software program for 1985. And they had good reason.



Point and shoot. Just click OPERATE, your weapon, and your target.

With close to a megabyte of involving graphics to manipulate with the ease of a mouse, you're free to do your detective work. Not that your problems are simple. You've awakened in a drug induced stupor with the police and a gruesome gang of hoods on your tail. To make your plight worse, you don't remember who you are.

So you've got to be on your toes. Grab your mouse. Aim your .38. And deter a threat without wasting time.



Examine the newest Mindscape thriller. It's not a sequel. But it is sensational.

*Uninvited* lets you take a terrifying journey of fear through the eerie confines of a dark, mysterious mansion. *Uninvited* really goes bump in the night with full digitized sound. Animation puts the locals, a

collection of demons and specters, in an exciting new light as they step out of the shadows. It won't take long for you to discover that they prefer not to have house guests.

You've got quite a mystery to solve. And your hide to save. So don't wait for a formal invitation.

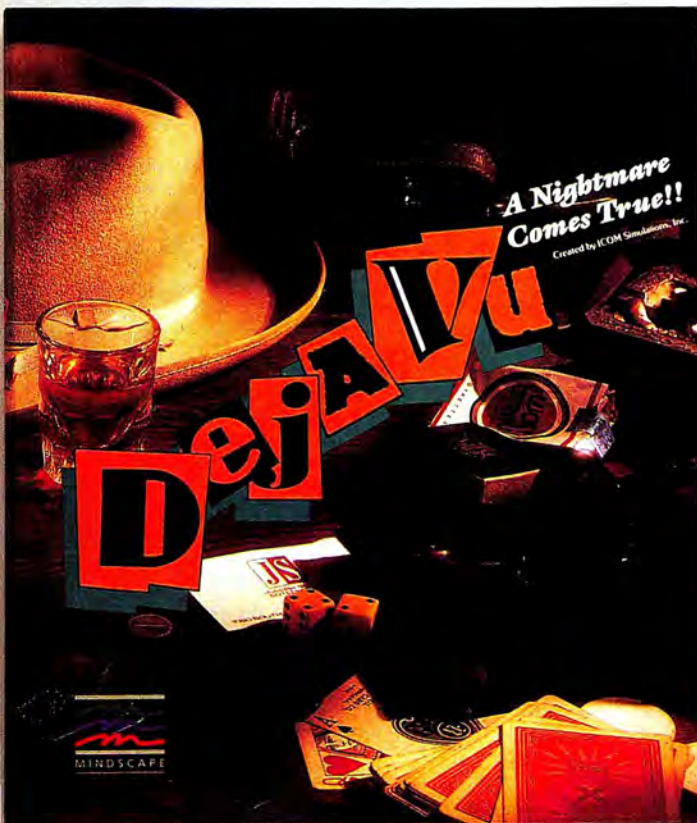


Consume the kind of excitement you would do almost anything to avoid in the real world. Experience what *MacUser* called "... a complete breakthrough in gaming."

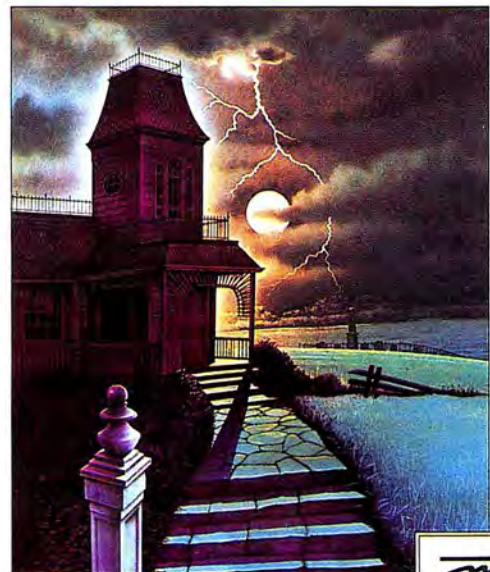
*Deja Vu: A Nightmare Comes True* and *Uninvited* are available now to maximize your Macintosh™ for spell-binding action. Enjoy them both.

And discover how much fun murder and mystery can be.

**Mindscape**  
Software that challenges the mind. MINDSCAPE



## Uninvited.



Developed by ICOM Simulations, Inc.





# 2ND ANNUAL EDITOR'S CHOICE AWARDS

ALTHOUGH IT SEEMS LIKE HARDLY a month has passed, it's been a full year since we announced our First Annual Software Awards. And what a year it's been. Where last year there were just a few products in most categories and none at all in some, there are now almost too many to count in the standard categories, and new categories are springing up left and right.

This year's awards honor the *new* Mac products of 1986, but they're more like Oscars than Emmys. The old and great products (and there are plenty of those) are generally well known. Certainly you know about them if you've been reading *MacUser* regularly. What you might not know about yet are the really great products that came out in the past year (1986). These awards are their place to shine.

*MacUser's* Second Annual Software Awards is also our place to thank all those people who have contributed to the fantastic success the Mac enjoyed in 1986. We're not only honoring products, but programmers, publishers, users, venture capitalists, dealers and Apple — without whom none of this, including *MacUser*, would have been possible.

In many categories, the newer products eclipse the older ones. That made our picks relatively easy. In a few cases, 1985's winners still deserve top billing, but we've gone ahead and chosen the best of the new crop anyway. It's something like grading on a curve.

The winners will be honored with a dinner and handsome statuettes at the January Macworld Expo in San Francisco. Here they are.



BY THE EDITORS

# THE EDITORS' CHOICE AWARDS FOR 1986

## BEST PRODUCT

**MORE** from Living Videotext was a clear winner. It gives users unprecedented productivity power. One user summed it up by saying that before he does anything, he checks first to see if it can be done in **MORE**. More often than not, it can. A superb product which uses the Macintosh interface to the fullest.

## BEST NEW BUSINESS ACCOUNTING PROGRAM

**Insight**, from Layered, combines power and intelligence. It's not the be-all, end-all accounting package that many are looking for, but it's an excellent and powerful product. (*Editors Special Note: Never buy a business accounting program without your accountant's explicit approval. Buying what we feel is the best will do you no good if it can't generate the reports your accountant requires in the form required.*)

## BEST NEW COMMUNICATION PROGRAM

**MicroPhone** from Software Ventures is our winner, although last year's winners, Hayes' **Smartcom II** and Freesoft's **Red Ryder**, don't give much away to this impressive newcomer. **MicroPhone** has both power and tremendous ease of use, with its "Watch Me" auto-scripting feature breaking new ground. This feature moves novices immediately into the category of power telecommunicators.

## BEST NEW ART/GRAPHICS APPLICATION

This was a tough category in which to pick a winner. We've awarded the top prize to Ann Arbor Softworks' **FullPaint**, which has taken the wonders of the paint classic and made them even better. And they said it couldn't be done. Trailing by only a hair is **MacBillboard** by CE Software. And special honorable mention to **ComicWorks** and **GraphicWorks** from Mindscape.

## BEST NEW BUSINESS GRAPHICS PROGRAM

Without question, this category goes to **Cricket Graph** from Cricket Software, a powerful — and useful

— integration of charting and analytical capabilities.

## BEST NEW MUSIC PROGRAM

Kette's **Studio Session** simply sang out here. This amazing (both graphically and sonically) program manages to extract six voices from the Mac's four-voice sound chip. The sound quality, when played through a good sound system, is astounding. That's due to the quality of **Studio Session's** instrument files, which were created using Kette's Audio Digitizer and **Sound Cap** software. That combination deserves an honorable mention on its own, and allows users to create superb sounds for their **Studio Session**.

## BEST NEW DATA MANAGER

**FileMaker Plus** from Forethought is a standout in a field crowded with superb programs. It has everything you could want in a data manager and excels at forms generation. It's the result of a publisher listening to users and modifying and vastly improving the already excellent **FileMaker**.

Honorable mentions here to **Double** and **Runtime Helix** and **Omnis 3+**, two programs of vast relational power. Both have runtime packages and have spawned many vertical applications. And a special thank you to **dMac III** for allowing all those "other" PC users to bring their dBase files over to their Macs.

## BEST NEW INTEGRATED SOFTWARE

Microsoft **Works** is our winner. While **Excel** is still the standard for all microcomputers, **Works** doesn't give much away to any program. Indeed with communications and innovative word processing modules, it is a far more complete integrated product.

Mac Plus owners should not ignore Release IA of **Jazz** by Lotus. Its **HotView** feature is still unique and a true delight on a machine with enough speed and memory to effectively use this large program.

## BEST NEW PERSONAL FINANCE PROGRAM

**MacMoney** by Survivor Software is by far the easiest and most power-

ful program of its kind. And since it now interfaces directly with **MacInTax** (see below), it's even more valuable. There's really no competition for that duo.

## BEST NEW PERSONAL TAX PROGRAM

Our runaway winner in this category is **MacInTax** (SoftView). This powerful program will turn out all the tax forms you'll ever need (including 1040's) on the LaserWriter in IRS-acceptable formats.

## BEST NEW SPREADSHEET

**MacCalc** from Bravo Technologies offers power and tremendous speed for a very low price. This program gives you more number-crunching bang for your buck than any other (including **Excel**).

## BEST NEW DESKTOP PUBLISHING PROGRAM

Last year's winner, **PageMaker** from Aldus, still dominates the market. But our choice for the best of the 1986 offerings is **ReadySetGo 2.1** from Manhattan Graphics, with an honorable mention to Boston Software's **MacPublisher II**.

## BEST NEW DESKTOP COMMUNICATIONS PACKAGE

A clear field to **inBox** from Think Technologies, a sophisticated Email system for the office. Saves time and keeps the desktop *under* your Mac from getting snowed under with memos and files. (**inBox** is in constant use around the *MacUser* offices and has cleared several acres of paper from various editors' desks.)

## BEST NEW PROGRAMMING LANGUAGE

**TML Pascal** from TML Systems swept this field early in the year, and is our winner. It offers the ability to create standalone applications, features for advanced programmers, compatibility with older Pascals and great price value. Still it wasn't a runaway winner and honorable mentions must be awarded to Think Technologies' **Lightspeed C** and **Lightspeed Pascal**, Microsoft **BASIC Interpreter 3.0** and Zedcor's **ZBasic**.

### BEST NEW WORD PROCESSOR

The kudos here go to **WriteNow** (T/Maker), an improved **MacWrite** with a built-in spelling checker is an ideal beginner-to-medium level word processor for just about everyone. Next year the field could get crowded — with **Word 3.0** (Microsoft), **HabaWord** (Haba/Arrays), **Laser Author** (FLI), and **Word Perfect** (SSI), to name a few — but this one will still look good.

### BEST NEW ORGANIZER

**MORE** from Living Videotext created a whole new productivity category, desktop presentations. With its superb outlining ability and unique tree and charting capabilities, this program has no peers.

A special honorable mention goes to **Acta** from Symmetry. This is an outliner nearly the equal of **MORE's** outliner, and it's a desk accessory!

### BEST NEW DESK ACCESSORY

1986 could well be called the year of the desk accessory. Several hundred DAs are now available. Picking a single winner proved impossible, so we are declaring a tie, with prizes to Cortland's **Top Desk** package and Batteries Included's totally new **BatteryPak**. **Top Desk's** **Menu Key** and **View** are among the most useful and unique DAs yet. And **BatteryPak's** **DiskTools** is simply the most necessary and best DA for users running HFS.

There are so many honorable mentions (apart from DAs like **Acta** and **Thunder!** that are honored in other categories) that a partial list will have to suffice: **Turbo DL** (Mainstay), **Smart Alarms** (JAM Software), **BigCaps** (Dubl-Click), **MockPackage** (CE Software) and **HFS Locator Plus** (PBI Software).

### BEST NEW SPELLING CHECKER : Desk Accessory

The best DA-type spelling checker, and best overall, is Batteries Included's **Thunder!**, which works inside virtually any application while it runs. It's easy to use and has an excellent dictionary. Our honorable mention, Target's **MacLightning**, ran a close second in the editor's voting.

### BEST NEW SPELLING CHECKER: Standalone

The best standalone spelling checker — by a wide margin — was Greene, Johnson's **Spellswell**, a

powerful and reliable program. It has a large (80,000 words) dictionary, and goes after incorrect hyphenation, homonyms, and contractions.

## THE BEST OF 1986 IN BRIEF

**BEST PRODUCT:** *MORE* (Living Videotext)

**BUSINESS ACCOUNTING PROGRAM:** *Insight* (Layered)

**COMMUNICATIONS PROGRAM:** *MicroPhone* (Software Ventures)

**ART/GRAPHICS APPLICATION:** *FullPaint* (Ann Arbor Softworks)  
**Honorable Mention:** *MacBillboard*, *ComicWorks* and *GraphicWorks*.

**BUSINESS GRAPHICS PROGRAM:** *Cricket Graph* (Cricket Software)

**MUSIC PROGRAM:** *Studio Session* (Kette)  
**Honorable Mention:** *Sound Cap*

**DATA MANAGER:** *FileMaker Plus* (Forethought)  
**Honorable Mention:** *Double Helix*, *Runtime Helix*, *Omnis 3+*, *dMac III*

**INTEGRATED SOFTWARE:** *Works* (Microsoft)  
**Honorable Mention:** *Jazz Release 1A*

**PERSONAL FINANCE PROGRAM:** *MacMoney* (Survivor Software)

**PERSONAL TAX PROGRAM:** *MacInTax* (SoftView)

**BEST NEW SPREADSHEET:** *MacCalc* (Bravo Tecinologies)

**DESKTOP PUBLISHING PROGRAM:** *ReadySetGo 2.1* (Manhattan Graphics)  
**Honorable Mention:** *MacPublisher II*

**DESKTOP COMMUNICATIONS PACKAGE:** *inBox* (Think Technologies)

**PROGRAMMING LANGUAGE:** *TML Pascal* (TML Systems)  
**Honorable Mention:** *Lightspeed C*, *Lightspeed Pascal*, *Microsoft BASIC Interpreter 3.0*, and *ZBasic*

**ORGANIZER:** *MORE* (Living Videotext)  
**Honorable Mention:** *Acta*

**DESK ACCESSORY:** (Tie) *Top Desk* (Cortland) and *BatteryPak* (Batteries Included)  
**Honorable Mention:** *Turbo DL*, *Smart Alarms*, *BigCaps*, *MockPackage*, *HFS Locator Plus*

**SPELLING CHECKER, DESK ACCESSORY:** *Thunder!* (Batteries Included)  
**Honorable Mention:** *MacLightning*

**SPELLING CHECKER, STANDALONE:** *Spellswell* (Greene, Johnson)

**CHILDREN'S PROGRAM:** *KidsTime* (Great Wave Software)

**ENTERTAINMENT PROGRAM, ADVENTURE:** *Uninvited* (Mindscape)

**ENTERTAINMENT PROGRAM, BOARDGAME:** *Shanghai* (Activision)

**PERIPHERAL:** *MacBottom HD-21* Hard disk (PCPC)  
**Honorable Mention:** *DataFrame 20*, *GCC FX /20*, *Micah 20AT* (internal hard disk)

**HARDWARE INNOVATION:** *Full Page Display* (Radius)

**MOST INNOVATIVE MAC PRODUCT:** *PictureBase* (Symmetry)

**MOST INNOVATIVE CONCEPT:** *Softstrip* (Cauzin)

**BEST UTILITY:** *Fedit Plus* (MacMaster Systems)  
**Honorable Mention:** *MacNosy*, *HFS Locator Plus*, *Tempo*, *TMON*

**BEST PRODUCT UNDER \$100:** *Reflex for the Mac* (Borland International)

**BEST PRODUCT UNDER \$50:** *MacInUse* (SoftView)

# THE EDITORS' CHOICE AWARDS FOR 1986

## BEST NEW CHILDREN'S PROGRAM

**KidsTime** from Great Wave Software is the winner in this category, with five excellent kids' programs in one package, including music and word processing. This is an area where Mac programs are under-represented — we hope to see a lot more good programs next year.

## BEST NEW ENTERTAINMENT PROGRAM : *Adventure*

Our adventure pick is **Uninvited**

by Mindscape, which brings (whatever category it is exactly) to new heights (or as the case may be, lows).

## BEST NEW ENTERTAINMENT PROGRAM: *Boardgame*

Activision's **Shanghai** is the clear winner here, a game so addictive that the government might have to step in and control its use.

## BEST NEW PERIPHERAL

This award had to go to a SCSI

hard disk, one of the major new categories in 1986. The best so far is PCPC's **MacBottom HD-21**. Its speed, reliability and quietness earn it top position. However, it's closely followed by SuperMac Technologies' **DataFrame 20** and GCC's **FX/20**. The best internal hard disk was the **Micah 20AT**.

## BEST NEW HARDWARE INNOVATION

The winner here without question is the **Full Page Display** from Radius, which brought the wide screen to the Mac. FPD allows you to mouse over to your original screen and back; a real boon for working with large-scale documents that normally involve a lot of scrolling about.

## MOST INNOVATIVE MAC PRODUCT

**PictureBase** from Symmetry introduced a new way of storing and retrieving graphic images. It and its format have already become a standard.

## MOST INNOVATIVE CONCEPT

This one goes to the **Cauzin Soft-strip**, for its simple, inexpensive method of distributing programs and data — on paper rather than magnetic media.

## BEST NEW UTILITY

The winner in this crowded field is MacMaster Systems' **Fedit Plus**. This powerhouse belongs in every user's library, as it can be profitably used by both the first-time Mac user and the most advanced hacker. In fact, both will need it sooner or later.

Special mentions to Jasik Designs' **MacNosy**, PBI's **HFS Locator Plus**, Affinity's **Tempo**, and ICOM's **TMON**.

## BEST PRODUCT UNDER \$100

**Reflex for the Mac** takes it here. It's an easy to use relational data base of surprising power.

## BEST PRODUCT UNDER \$50

The winner here is **MacInUse** from SoftView, a transparent program which logs exactly how your Mac is being used without you having to do a thing. It can be customized, and anyone who claims a business deduction on his Mac should definitely have this program. ☞

## OFF THE WALL AWARDS

Here are a few programs we felt we really had to mention, although for obvious reasons they don't belong in the mainstream awards. Sorry, guys, no impressive statuette for these; close, but no cigar.

## SPECIAL AWARD FOR MOST RELEASED VERSIONS IN ONE WEEKEND

Freesoft's **Red Ryder** managed three real releases on the weekend of April 25th to the 27th. Scott Watson, the programmer, was attending the Mac show in Chicago, and as soon as he gave out a version he was besieged with requests for improvements. So each night he went to his hotel room and cranked out a new version! That's the sort of dedication that makes picking these award winners so hard.

## WORST RELEASE

**System 3.0** from Apple. This one had the not-too-useful ability to destroy your files, without asking your permission first. If you find a copy, get rid of it at once. Don't wait, just get rid of it. The latest **System** (currently 3.2) is available free at your Apple dealer if you bring in a blank disk.

## BEST VAPORWARE

**MindWrite**: they promised and promised, we waited and waited. We're still waiting.

## BEST ORPHAN SUPPORT

For you folks who, like our publisher, paid \$10,000 cash for a Lisa in 1983, and another \$3,000 to upgrade it to Mac status, this one goes to **TurboCharger** (Nevins Microsystems). With its help, you can now bring your Lisa up to speed — well, almost.

## MOST POWERFUL "MAC"

The Prodigy 4 from Levco with its 68020 processor and 68881 math coprocessor and \$7000 price tag only looks like a Mac. Its speed and power put it solidly into the minicomputer category.

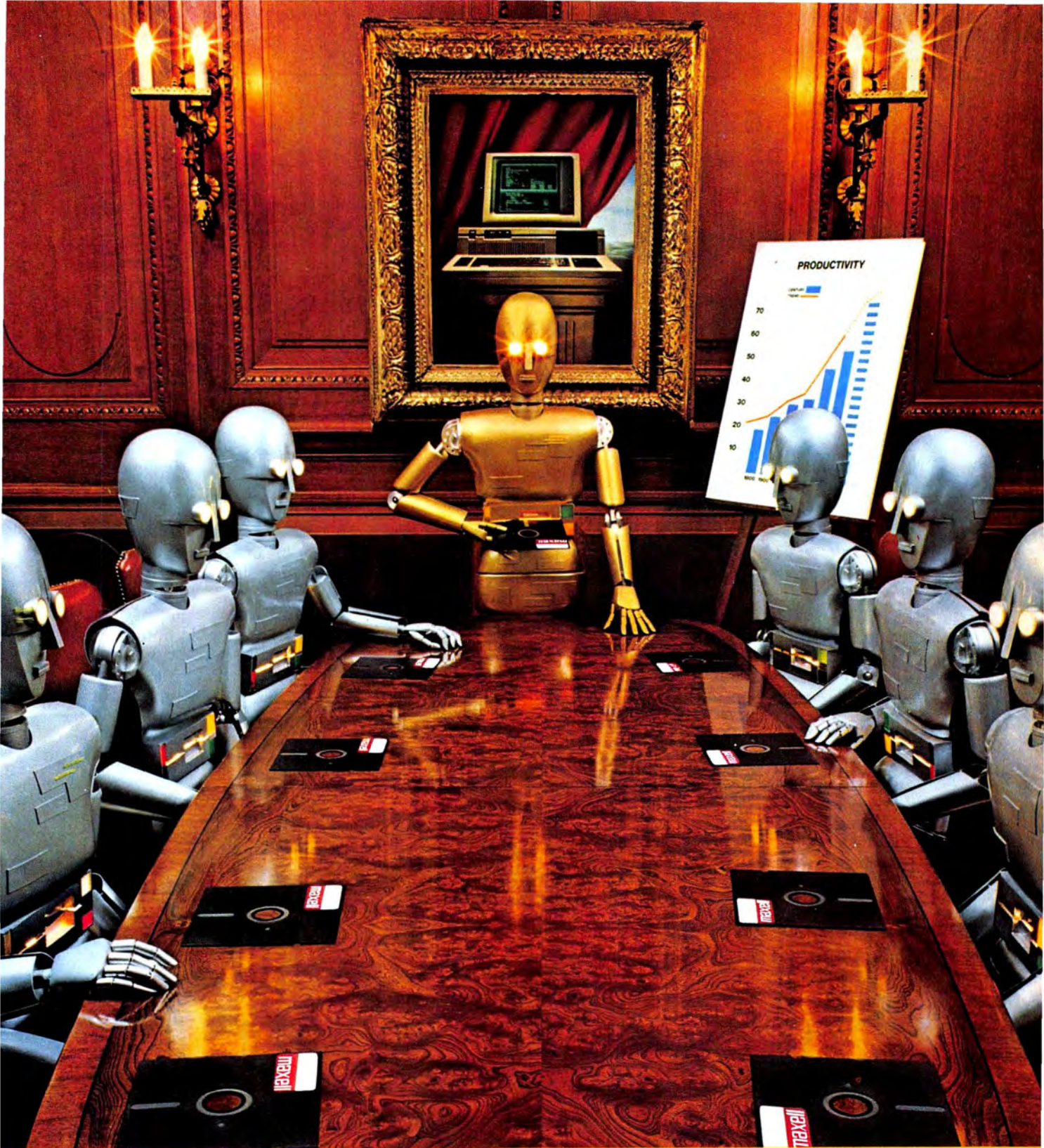
## MOST INSECURE MAC PUBLISHER

While we are happy to publish subscription ads from **MacTimes**, **MACazine** or any other competing publication (and vice versa), the very idea of such a thing seems to be enough to give *Macworld* the willies. They have even gone so far as to obliterate reference to other Mac publications from the ads they do *accept*. Maybe they know something we don't?

## THE "WHAT WILL THEY COME UP WITH NEXT?" DEPARTMENT

Well, Infocom certainly deserves some mention here for coming up with the first computer game that comes with scratch-'n'-sniff and plays on three decency levels: Steve Meretzky's **Leather Goddesses of Phobos**. You can play as male or female; the game determines this by which toilet you go into at the beginning. IBM owners get a "boss key" — but it's not the advantage you might think. Close examination will show the "business" screen to be a spreadsheet for marital aids.

"Honorable mention" in this category to Mike Saenz's **MacPlaymate**, from Pegasus Productions. Use your imagination — you won't be far wrong.



When computers get down to business, they move up to Maxell.

Maxell is ready when you are with the newest technology in magnetic media. A perfect example is this double-sided 3½" microdisk.



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THE GOLD STANDARD

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# DESKTOP PUBLISHER OF THE YEAR

**MacUser and Apple join together to honor the  
best and brightest of the desktop publishers.**

■ BY THE EDITORS

LONG BEFORE THE WORDS "DESKTOP Publishing" became one of the main catch phrases in the personal computer world, people were using their PCs to "desktop publish." And from the day the Mac was introduced, it was the desktop publishing machine. Although there was a dearth of software, there was *MacPaint*. Attractive invitations, flyers and ads began cropping up everywhere. No bulletin board or mail box was immune.

Soon after we started *MacUser*, we started to receive a steady trickle of people's efforts. They were proud of them (almost always with good reason), and wanted to share them. A year later the trickle had become a steady stream, aided in no small part by the excellent programs (such as *PageMaker* and *ReadySetGo*) designed to facilitate just such work.

We felt we should both share the best of this work with you, and recognize and honor the creators of the best desktop publishing work. A contest, especially if we could offer substantial prizes, seemed the best way to proceed. We approached Apple and others with ideas.

They were as enthusiastic as we

## JUDGE THE JUDGES FOR YOURSELF



FELIX  
DENNIS



FELIX DENNIS, founder and publisher of *MacUser*, who commutes so often between London and New York they have a *seat* named after him on the Concorde! He is a devoted desktop publisher, and has been creating and producing magazines all his working life. He has been a firm believer in the Mac from before the ark.

"I had some doubts when we discussed launching this contest and was concerned that we would receive a great many enthusiastically created, but poorly designed, entries. This turned out to be nonsense and I was both heartened at the general level of design and simply stunned at the attention to detail and sheer volume of work on display."

He has firmly threatened to make this contest an annual event.



REESE  
JONES



REESE JONES is founder and president of the Berkeley Macintosh Users Group (BMUG). He has been involved in the development, set-up and operation of several self-service PC publishing facilities in the Berkeley/San Francisco area.

Reese is currently working towards a PhD in Biophysics at the University of California at Berkeley. As part of a research team at Lawrence Berkely Laboratory, he is developing PET and NMR brain imaging techniques to investigate abnormal brain chemistry in schizophrenia.

He was aided in his judging by other BMUG graphics experts including Harry Critchfield, Barbara Chan and Raines Cohen.



AMANDA  
NORTH



AMANDA NORTH is Apple Computer's manager of desktop publishing programs. In that capacity she is responsible for planning and managing all of the marketing programs for the desktop publishing market. Included in these are marketing communications, events and research, sales development and vertical market studies.

Prior to joining Apple Computer, Amanda held the position of marketing manager for Impell Corporation's computer systems group. Before that, she was a corporate finance analyst with Kidder, Peabody & Company. She currently resides in Palo Alto, California.

were. Apple Computer generously put up a LaserWriter Plus as the Grand Prize and others made substantial contributions. All that remained was to announce the contest, gather together the numerous entries and select the winners.

Would that it were that simple! We were nearly overwhelmed (both physically and sensorily) by the avalanche of entries. The boxes that we eventually sent to the judges weighed over 60 pounds each! We received hundreds of entries (we had hoped for maybe 200, the final total was at least double that). And picking a winner in each category was no simple task. The overall quality level was amazingly high. The rest of this article will be devoted to showing you the winning entries. Future articles will detail the techniques that were used to create some of the entries; techniques that you will be able to use in your own work.

All entries were rated on a scale from 1 to 10 in originality, technical proficiency, aesthetic appeal and effective use of the medium. Our six judges (see sidebar) filled out long scorecards and we added up the results. The scorecards asked for

OFFICIAL SCORECARD

**MacUser Desktop Publisher of the Year**

MAIN CATEGORY: \_\_\_\_\_ JUDGE: \_\_\_\_\_ DATE: \_\_\_\_\_

Entry	Entrant's Name	Entry Title	Comments	Originality	Technical Proficiency	Aesthetic Appeal	Effective Use Of Medium	Overall Rating
812	David Claba	Blank Power	Great use of the Macintosh	6	10	5	10	24
813	Bill and Howard	General Corp Report		5	10	7	10	24
814	Nancy	Electric Selection		7	10	6	10	27
815	Robert Shada	Graphic Letters		6	10	6	10	24
816	Richard Green	Art Of Macintosh	Very good use of the Macintosh	7	10	5	10	31
817	Don Brul	Dynamics of Jazz		6	10	5	10	24
818	David Weiskamp	Mid Life Crisis		5	10	4	10	21
819	Tom Deener	How Easy		5	10	7	10	24

The judges used score cards like this. Over 35 were required to list all the entries.

comments, and many of them were revealing. Several themes that ran through the comments involved professional values such as use of proper typefaces, justification and hyphenation (where appropriate) and overall readability. It's easy to use the Mac to create very original, great looking material that simply can't be read. That's not the point of publishing. Good art direction is also necessary. Good design doesn't just happen. Like good writing it is the result of hard work.

The judges generally felt that entries exhibited high technical profi-

ciency. The winners were those who mixed together the proper amounts of originality and common sense.

We feel that the winning entries can hold their own in any publishing environment. They (and many of the near winners) are not only attractive examples of what the Mac can do, but great sources of ideas and techniques for you.

Don't just look at the following pages as illustrations of contest winners. Instead, try to see why they won and how they were done. And maybe next year you'll be the Grand Prize winner.



**TIM ONOSKO**



TIM ONOSKO is an author and journalist who specializes in writing about technology and popular culture. He has also written on national affairs, defense, the arts and entertainment, and has written and traveled extensively in Japan.

A regular contributor to *Omni* and *New Look*, he is also a contributing editor of *Video* and *Creative Computing*, and a regular commentator on TV's "The New Tech Times."

Tim has authored several books, including *Funland, USA, Wasn't the Future Wonderful?* and *Getting the Most From the Commodore 64*.

He currently resides in Madison, Wisconsin.



**TERRY ULICK**



TERRY ULICK is the owner and publisher of *Personal Publishing*, *The Magazine for Desktop Publishers*, and the author of *Personal Publishing with the Macintosh*, featuring *PageMaker 1.2*. He has also founded several other publishing-related magazines, including *Publishing Trade* and *Professional Publishing*, and *MagazineMICRO*, a newsletter. Terry has written more than 100 articles on the art of publishing and 50 reviews on publishing technology products.

Beyond his continuing work with *Personal Publishing*, he is finishing two books (scheduled for Spring 1987 release) on desktop publishing.

He currently lives in the Chicago area.



**C. J. WEIGAND**

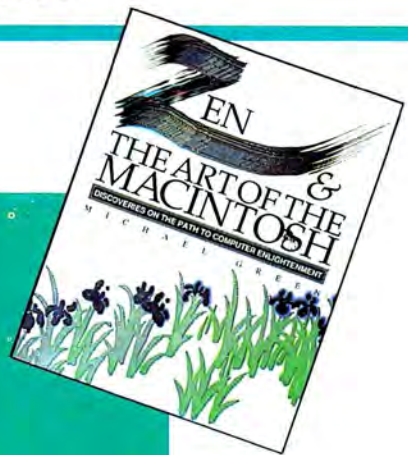


CHUCK WEIGAND is a retired U.S. Navy nuclear submarine officer. He is currently an engineering specialist at the Electric Boat Division of General Dynamics.

He's been involved with computers for about 16 years and is a well-known freelance writer, writing primarily on Macintosh related subjects. Desktop publishing is an area of prime interest to him, particularly word processing, graphics and page layout. He sees a bright future for the Mac in this area. He is currently technical editor for *MACazine* and contributing editor for *Personal Publishing*. Chuck is, by his own description, "a latter-day Connecticut Yankee!"

# DESKTOP PUBLISHER OF THE YEAR

## GRAND PRIZE WINNER/MICHAEL GREEN



*Zen and the Art of the Macintosh* is a most unusual book. It is a *tour de force* of MacPaint technique. It was created entirely in that program and printed out on a LaserWriter. In short, what you see is what you get.

No entry inspired more heated comment among the judges. Some thought it head and shoulders above the competition, while others, recognizing its technical excellence, complained that too much of its

parentage was apparent on every page. They felt that great desktop publishing efforts should not cry out: "I was done on a Mac."

Overall, though, *Zen and . . .* provides inspiration and good advice to many. Writers, graphic

artists and desktop publishers can all read it and gain insights that will improve their own work. And it's fun to just plain read. *Running Press Book Publishers, 125 South 22nd Street, Philadelphia, PA 19103.*

## GENERAL WINNER/EMIGRE GRAPHICS



*Emigre Magazine* uses specially designed fonts throughout. The fonts were designed using FONTastic and FONTographer.

The actual copy is created in MacWrite to facilitate copy editing and proofreading. The fin-

ished text is then formatted for typesetting in MacWrite (for galley printouts) or in PageMaker (for fully composed layouts). Special headline fonts and graphics are designed in MacPaint or MacDraw or simply written in PostScript, and added to the text. Final output is generated using both bit-mapped and PostScript fonts using both LaserWriters and Linotronic printers.

The special fonts grew from the publisher's need for unique and more effective fonts than those otherwise available for the Macintosh. The fonts are not simply copies of traditional analog typefaces. Their forms are derived from the logic of the digital grid and the coarse reso-



lution characteristics are incorporated as design elements. Fonts of this coarse resolution make attractive, strongly characteristic headline fonts when enlarged. *Digital type designed by Zuzana Licko. Art direction by Rudy VanderLans. 2431 Russell, Berkeley, CA 94705, (415) 841-4161 or 845-9021.*





## BOOKS WINNER/ELAINE MARCUS & RANDY GRANOVETTER

*Making It Easy: Crafts and Cooking Activities* is a special textbook for special people. The subtitle of this wonderful book is "Skill Building for Handicapped Learners." The small illustrations and section icons were created in *MacPaint*. *MacDraw*

templates were created for standard items. Layout and text were then created entirely in *MacDraw*, with *Switcher* being used to transfer artwork.

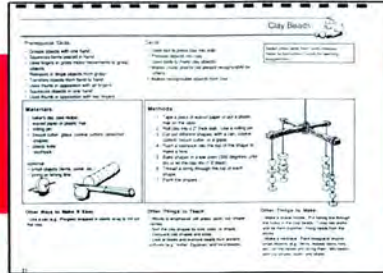
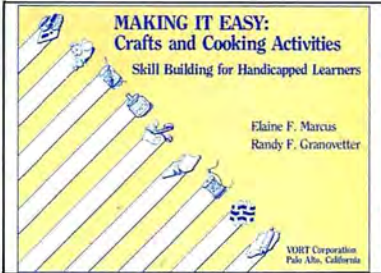
Draft or proof copies were printed on an *ImageWriter*, while camera-ready pages were

printed on a *LaserWriter*.

The project would have been easier if *PageMaker* or *MacPublisher* was available and bug free, but unfortunately, that was not the case. Still, this book is estimated to have cost 30 to 35 percent less than the normal

production cost of a book its size. The use of computers to do all aspects of the work also allowed the work to be easily divided between the two authors.

VORT Corporation, PO Box 60132, Palo Alto, CA 94306.



## NEWSLETTERS WINNER/SIMON TUCKETT

*Graphic Perspective* is a new and exciting newsletter covering the desktop publishing field. Its production will only use the current state of the art.

According to the publishers: "This publication was produced entirely on Apple Macintosh computers. Text entry and layout was accomplished in *Just Text* utilizing Helvetica and Times Roman typeface families. With the exception of pages 8 & 9 all object-oriented illustrations were created in *MacDraw* and then converted to pure PostScript with *Post-a-Matic*. Bit-mapped images were created with *MacPaint*, *ThunderScan*



and *LaserTools*. Graphic effects and type modes for the publication were written entirely in PostScript. All files were converted to PostScript before be-

ing proofed on an Apple *LaserWriter Plus*. Final plate-ready film was produced by downloading those same files to *AmperSand Typographers' Allied Lino-*

tronic L300 imagesetter. Absolutely no paste-up was necessary." *Ashley House, 176 Wicksteed Avenue, Toronto, Ontario, Canada M4G 2B6.*

## ADVERTISING WINNER/LINDA CARDONE

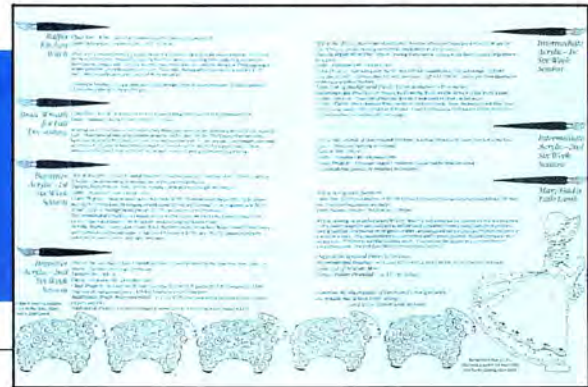


*The Joy of Crafts* is one of several pieces that was included in a direct mail package that announced the Grand Opening of a new, small business. The whole package (which included a newsletter and an invitation) was put together in only 72

hours. The text was prepared and formatted in *Word*. Line art was *ThunderScanned* and touched up in *MacPaint*. Some of the ornaments came from Volume 2 of the *Paste-Ease* clip art package. The font is Adobe's Garamond. And everything was put together in *PageMaker*.

One particular problem was the lack of support for downloadable fonts such as Garamond in *PageMaker*. When text was placed into *PageMaker* it was displayed and reprogrammed as Helvetica. The process was far more difficult than it should have been. The publishers were

often reduced to waiting for bit-maps to print when a product with downloadable fonts would have been finished long before. This also points out the need for a good laser spooler. *Card One Enterprises, Suite One, 55 South Street, Concord, NH 03301, (603) 228-IDEA.*



# DESKTOP PUBLISHER OF THE YEAR

## GENERAL RUNNER-UP / PATRICK BRINTON & STEVEN ENGLANDER

**Oriental Dance Poster:** The arch was ThunderScanned from an original drawing, and then

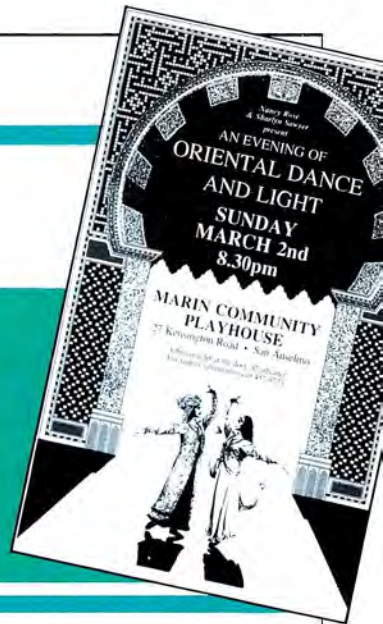
almost totally rebuilt in *MacPaint*. All the mosaics were re-drawn. A female dancer was also ThunderScanned and then touched up in *MacPaint*.

She was then copied, flipped horizontally and had a turban, mustache and robe added (for a very quick gender change).

The dancers' shadows were created in *ClickArt Effects*. The shadow of the arch was done in *MacDraw*. Finally the entire

poster was assembled and the type added in *PageMaker*.

**The Arts and Culture of Bali:** Both the photos and maps were ThunderScanned. The text was created in *MacWrite* and the two decorative borders were formed in *MacPaint*. Design, layout and the remaining borders were done using *PageMaker*. *Interface*, 2086 Sir Francis Drake Boulevard, Fairfax, CA 94930, (415) 459-6263.



## BOOKS RUNNER-UP / FORTNER ANDERSON

*Schizotexte* is an attractive book of poetry that was entirely produced on the Mac. The whole project took about 5 months, from the original idea to laying out the pages. All of the interesting visual effects are intentional. It cost about a thousand dollars Canadian or \$650 US. The print run was 400 copies, and it was distributed in Canada, the United States and Europe. *Dromos Editions*, 4083 Clark, Montreal, Quebec, Canada H2W 1X1, (514) 843-3873.



## NEWSLETTERS RUNNER-UP / CARLA BOND COUTTS

The *Peddler's Village News* is a quarterly newsletter produced entirely using *PageMaker*. No other programs are used. The company admits there were some problems as they have only a single 512K Mac and a single 128K Mac. Still, the project was very cost effective, and 15,000 copies in two colors are produced four times a year. *CM Associates*, Doylestown Agricultural Works, Suite 200, 120 South Main Street, Doylestown, PA 18901, (215) 348-4288 or 3774.



## ADVERTISING RUNNER-UP / ANN RUDY



This promotional booklet for the School of Richmond Ballet was produced using *Word*, a ThunderScan, *MacPaint* and *PageMaker*. All text and type formatting was done in *Word*. Then actual brush strokes were Thun-

derScanned and distorted in *MacPaint* to fit the design. All layout and final type formatting was done in *PageMaker*. *Paragon Design*, 7 East Franklin Street, Carriage House, Richmond, VA 23219, (804) 782-0880.



# In Case of Emergency

**Big Mac attack. Real big.**  
**R**obert Smith (his real name) is a rationalist. He designs rational tools and systems for surviving a nuclear attack.

Throw away your notions of crazy geeks armed to the teeth in desert outposts. Our winner has thought this thing out. He's even written a book on the subject: "How to Survive a Nuclear Disaster."

## Gimme Shelter.

Mr. Smith opposes using the big one as much as the next sane human being. But, he dares to think the unthinkable: that your chances for survival are better if you have a very well equipped shelter from the storm. So he developed the concept of group-owned CAYASA's, or "Come-As-You-Are Survival Areas." He'll buy the land, pre-dig emergency shelters, purchase tools and supplies, publish a newsletter, get an 800 number, and give training sessions to members, all for a rather low monthly fee.

## Where has all the software gone?

The Mac is a real lifesaver when it comes to setting up this operation. Smith is using MacProject for strategic planning, and Microsoft Word,



MacWrite, and MacLightning for his extensive word processing. MacPaint, MacDraw, and FullPaint help with the design and layout of fallout shelters and tools. And OverVue and Helix help him create killer databases of the numerous military facilities that comprise our nuclear infrastructure (i.e. not good locations for CAYASA's).

To tell you the truth, we're a little overwhelmed at how many Mac programs Mr. Smith uses. But, after all, there may not be much time.

There is, however, we hope, enough time for you to enter our contest. Are you doing something fascinating with your Mac? Let us know.

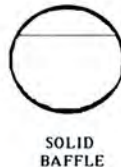
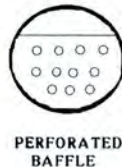
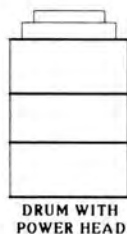
**Contest Winner #2**

**Name:** Robert C. Smith, C.E.O.  
 Arminius Publications & Productions, Merchantville, NJ

**System:** Mac Plus, Mac 128, and unenhanced Mac 512.

**Application:** Develops strategies for surviving nuclear war.

EXPEDIENT VACUUM CLEANER FOR MASS REMOVAL OF FALLOUT



Mr. Smith's innocent looking vacuum could be a real lifesaver when the long hard rain starts to fall.

"My Connection." TM

# MacConnection

14 MILL STREET, MARLOW, NH 03456 1-800/Mac&Lisa or 603/446-7711

# Explosive savings!

## SOFTWARE

### Affinity Microsystems

Tempo (power user's macro utility) . . . . . \$69

### Altsys

Fontastic (create your own fonts) . . . . . 27

### Ann Arbor

FullPaint (open four documents at once) . . . . . 55

### Arrays

Home Accountant (req. external drive) . . . . . 52

### ATI

Teach Yourself Multiplan . . . . . 39

Jazz or Excel Training . . . . . 39

### Batteries Included

The Mac BatteryPak (9 desk accessories) . . . . . 27

Home Pak (telecommunications, filer) . . . . . 29

Time Link (time management system) . . . . . 29

### Borland International

Sidekick w/Phonelink . . . . . 59

Reflex (information management analysis) . . . . . 59

### BPI Systems

General Accounting (full-featured) . . . . . 229

### BrainPower

Think Fast (improves recall) . . . . . 23

StatView (statistics package) . . . . . 59

Designscope (electronic circuit design) . . . . . 129

StatView 512+ (req. external drive, 512k) . . . . . 179

### Broderbund

Print Shop (create cards and memos) . . . . . 49

Geometry (over 350 problems!) . . . . . 69

### CAMDE

Nutricalc (diet & nutrition analysis) . . . . . 49

### Casady Company

Fluent Fonts (two-disk set) . . . . . 29

Fluent Laser Fonts (Bodoni, Calligraphy, Monterey, Prelude, Ritz, & Sans Serif) . . . . . each 49

### Central Point Software

Copy II Mac (includes MacTools) . . . . . 20

### Challenger Software

Mac3D (3D graphics, CAD features) . . . . . 129

### Chang Labs

Rags to Riches Ledger . . . . . 125

Rags to Riches Receivables (req. 512k) . . . . . 125

Rags to Riches Payables (req. 512k) . . . . . 125

Rags to Riches Three Pak . . . . . 299

Inventory Control . . . . . 245

Professional Billing . . . . . 245

### Cortland

TopDesk (7 new desk accessories) . . . . . 39

### Creighton Development

MacSpell+ (spell checker, req. 512k) . . . . . 55

### Cricket Software

Statworks (statistical package) . . . . . 79

Cricket Graph (multiple windows) . . . . . 129

### DataViz

MacLink (transfer Mac/IBM data) . . . . . 89

### Desktop Graphics

DrawArt (MacDraw artwork, req. 512k) . . . . . 29

DrawForms (requires MacDraw) . . . . . 30

### Digital, etc.

MacAccountant (integrated accounting) . . . . . 99

Turbo MacAccountant (w/video tape) . . . . . 299

Includes GL, AR, AP, Payroll, & Invoicing.

### Dow Jones

Straight Talk (access News/Retrieval) . . . . . 62

Spreadsheet Link . . . . . 65

Market Manager PLUS . . . . . 129

### Dreams of the Phoenix

Day Keeper Calendar . . . . . 27

Phoenix 3D (3D graphics) . . . . . 27

Quick & Dirty Utilities Vol. 1 or Vol. 2 . . . . . \$27

Twelve-C Financial Desk Accessory . . . . . 27

### Dubl-Click Software

World-Class Fonts! Vol. One or Vol. Two . . . . . 29

Calculator Construction Set . . . . . 39

### EDO Communications

Laserworks (requires 512k, Laserwriter) . . . . . 229

### Electronic Arts

Financial Cookbook (financial formulas) . . . . . 32

Deluxe Music Construction Set . . . . . 32

### Enabling Technologies

Easy3D (create solid 3D objects) . . . . . 79

### EnterSet

Quickpaint (find Paint files fast) . . . . . 27

Quickset (icon-driven desk accessories) . . . . . 27

Quickword (word processing tool) . . . . . 32

MacGAS (spell checker, 512k, ext. drive) . . . . . 55

### 1st Byte

First Shapes (preschool learning tool) . . . . . 32

Speller Bee, KidTalk, or Mathtalk . . . . . 42

Smoothtalker (speech synthesis) . . . . . 52

### Forethought

Factfinder (free-form info organizer) . . . . . 79

FileMaker (custom forms & reports) . . . . . 99

FileMaker Plus (feature-packed database) . . . . . 159

### Fortnum/Southern

Macnooga Choo-Choo (train set, 512k) . . . . . 21

MacChemistry . . . . . 89

### FWB Software

Hard Disk Backup (protect hard disk info) . . . . . 39

Hard Disk Partition (speeds up hard disk) . . . . . 39

Hard Disk Util (program backup) . . . . . 59

### Great Wave Software

Christmas Favorites . . . . . 12

Instrumental Favorites . . . . . 12

The Art of Fugue (Bach) . . . . . 12

KidsTime (educational, ages 3-8) . . . . . 29

LOC (strategy game) . . . . . 29

ConcertWare+ (music composition) . . . . . 29

ConcertWare+ MIDI . . . . . 75

### Greene, Johnson

Spellswell (60,000 word dictionary) . . . . . 45

### Hayden Software

I Know It's Here Somewhere (filer) . . . . . 20

Hayden:Speller (for Word & MacWrite) . . . . . 27

MusicWorks (songs for your Mac) . . . . . 32

DaVinci Building Blocks (req. Paint program) . . . . . 46

Home Design (home planning tool) . . . . . 49

Score Improvement System for the SAT . . . . . 59

VideoWorks & MusicWorks Bundle . . . . . 59

DaVinci Commercial Interiors . . . . . 114

### Ideaform

MacLabeler (print disk labels) . . . . . 29

### Imagine

Smart Alarms (DA reminder system) . . . . . 39

### Industrial Computations

Powermath (equation solving tool) . . . . . 52

### Infosphere

LaserServe (network software) . . . . . 125

MacServe (network software) . . . . . 250

### Innovative Data Design

Paste-Ease (requires Paint program) . . . . . 35

MacDraft (new updated version, 512k) . . . . . 179

### Kensington

Graphic Accents (req. Paint program) . . . . . 29

Type Fonts for Text (16 new fonts) . . . . . 29

Type Fonts for Headlines (req. 512k) . . . . . 42

### Layered

Notes...For Excel or Jazz . . . . . 42

Front Desk . . . . . 75

### Legissoft/Nolo Press

WillWriter 2.0 (prepare your own will) . . . . . \$32

### Linguist's Software

Tech (1000 different symbols) . . . . . 59

### FOREIGN LANGUAGE FONTS

MacCyrillic . . . . . 39

SuperFrench/German/Spanish . . . . . 39

MacHieroglyphics, MacKana/Basic Kanji,

MacSemitic/Coptic/Devanagari, MacKorean,

MacArabic, MacGreek, MacHebrew . . . . . each 59

SuperGreek New Testament . . . . . 79

LaserFrench/Greek/German/Spanish . . . . . 79

MacGreek/Hebrew/Phonetics . . . . . 89

### Living Videotext

ThinkTank 512k (outline processor) . . . . . 99

More (outlines, windows, & tree charts) . . . . . 159

### MacMemory

MaxRam & MaxPrint . . . . . 39

### MacroMind

M.U.D. (Art Grabber+, CheapPaint) . . . . . 32

### Magnum

Natural Sound Effects . . . . . 27

Natural Sound Cable & Editor Disk . . . . . 89

McPic - Volume 1 or Volume 2 . . . . . 29

The Slide Show Magician 1.3 . . . . . 35

### Manhattan Graphics

Desk Design (2 volume set) . . . . . 37

Ready,Set,Go!3 . . . . . 175

### Microsoft

Flight Simulator (the Mac takes flight) . . . . . 33

Learning Multiplan and Chart (2 disks) . . . . . 39

Chart 1.0 (42 chart styles) . . . . . 72

Basic 2.1 (Basic language interpreter) . . . . . 89

Multiplan 1.1 (63 columns by 255 rows) . . . . . 105

File 1.04 (flexible data manager) . . . . . 111

Word 1.05 (word processor, mail merge) . . . . . 111

Fortran 2.2 (compiler) . . . . . 169

Works 1.0 (integrated productivity tool) . . . . . 189

Excel 1.0 (power spreadsheet) . . . . . 225

### Miles Computing

Mac the Ripper (req. Paint program) . . . . . 27

### Mindscape

The Luscher Profile (personality profile) . . . . . 24

The Perfect Score: SAT . . . . . 47

ComicWorks (create your own comics) . . . . . 49

GraphicWorks (newsletters, ads, posters) . . . . . 49

### Monogram

Forecast (tax planning) . . . . . 41

Dollars & Sense (home, small business) . . . . . 81

### Nevins Microsystems

Turbocharger (disk cache, req. 512k) . . . . . 39

### New Canaan MicroCode

MDCFinder (requires 512k) . . . . . 20

Mac Disk Catalog II (requires 512k) . . . . . 32

### Odesta

Helix (req. 512k, external drive) . . . . . 105

Double Helix (relational, custom menus) . . . . . 289

### Palantir

MacType, MathFlash or WordPlay . . . . . 26

Inventory Control, GL, or AR . . . . . each 69

inTalk (communication to emulation) . . . . . 79

### PBI Software

Icon Switcher (customized icons) . . . . . 14

Icon Fun & Games or Business Libraries . . . . . 14

HFS Locator (DA organizer for HFS) . . . . . 27

Hard Disk Backup (supports MFS, HFS) . . . . . 29

### Peachtree

Back to Basics GL, AP, or AR . . . . . each 89

### Polarware

Graphics Magician (animation) . . . . . 39

# DIRECT ICONCONTACT

**There's nothing cryptic  
about the information  
from this Delphic  
oracle.**

ANCIENT GREEKS KNEW WHERE to go for the answers to their difficult problems. They went to the Oracle of Apollo at Delphi for help. The Oracle, believed to be possessed by the gods, would ramble while an organization of priests translated her words into verse prophecy. In its time, the Oracular priesthood acquired a great deal of practical wisdom and gained the respect of many of the people who sought its advice.

Modern Mac users also have access to a wealth of information, advice and useful tools, and it isn't necessary to deal with Pythia and the rest of the Apollonian hierarchy—simply use your modem to connect with the ICONtact Macintosh Users' Group of modern-day Delphi, an international network for computer users.

## WELCOME TO ICONCONTACT

While on your way through ICONtact, you might see a few "What's New" announcement mes-

sages. These let you know about things of unusual interest or importance. And they don't keep reappearing to waste your time. You'll only see an announcement the first time you visit an area after it's been posted, but the menu contains a record if you need to review. Most announcements are fairly short, and often refer you to longer messages in a particular Forum for more detailed comment. There are other kinds of announcements. For instance, in the Database area you'll be told about any new items in the data base. If telecommunication terms like Menu or Delphi terms like Forum are unfamiliar to you, check the accompanying sidebar for "Tips for On-Line Navigation."

The MAC menu has a whole list of things to do, but the most important ones are the major areas of ICONtact: Forum, where messages are posted by ICONtact members; Database, where the archive of programs and files is kept; Conference, where you can have a real-time conversation with other people in ICONtact all over the world and "talk" with special guests; and MAIL, which is used for electronic letters and sending Macintosh files from one Delphi member to another. Let's examine each of these in turn.

## WHICH WAY TO THE FORUM?

Forum is Delphi's name for the public "bulletin board," where you can ask questions, get help, help a fellow ICONtact member, complain

about copy-protected software, or even speculate about the Big Screen Flat Mac. Forum automatically keeps track of the last message you have read, so it's easy to read the new messages. It also keeps track of which messages are replies to other messages, so that you can start with a message that interests you and progress through all replies.

Forum messages are grouped into Topics. There are 14 topics in ICONtact. Topics let you select only those messages that interest you in the Forum. For instance, if you aren't interested in programming, just type *clear prog* to stop seeing messages in the Programming topic. Of course, you can choose to view that topic at a later date.

Messages in Forum are numbered in the order in which they were posted. When you read a message, you'll see the number, the date and time it was posted, its topic, a subject line, and the Delphi names of the sender and addressee. You'll soon recognize people by their Delphi names, which sometimes are like their real names (LOFTUS-BECKER, well-known Hartford law professor and author of Macintosh software who believes everyone should pay for shareware) and which are sometimes more fanciful (PIZZAMAN, a Macintosh enthusiast and surgeon who is a fan of *Hill Street Blues*).

The first time you enter Forum after joining ICONtact, your high message number is zero. Since there are many messages here, it's a good idea to set your high message number to something close to the end of the message base, like this:

```
MAC>What do you want to do?
forum
```

```
Welcome to Macintosh ICONtact
Forum.
```

```
Forum contains messages 16
through 16491.
```

```
Highest message you've read is 0.
FORUM>Read, Reply, Menu,
Exit> high
```

```
High Message on Entry: 0
Current High Message : 0
New Value (or RETURN):
16441
```

```
FORUM>Read, Reply, Menu,
Exit> read new
```

BY PETER OLSON

# Dynamite service!

## ProVUE Development

OverVUE 2.0 (power-packed database)	\$149.
Mail Manager Template	29.
Personal Finance Template	29.

## QED Information Sciences

Typing Made Easy (instruction)	35.
--------------------------------	-----

## Rubicon Publishing

Silver Palate Collection (NY's finest!)	29.
Dinner At Eight (recipes to wines)	35.
Dinner At Eight-Silver Palate Bundle	59.

## Satori

BulkMailer (mailing lists)	75.
----------------------------	-----

## Sierra On-Line

MacOneWrite CD, AR, or GL	each 79.
---------------------------	----------

## Silicon Beach Software

Accessory Pak 1 (useful utilities)	21.
Silicon Press (printer utility, 512k)	42.

## Simon & Schuster

Mac Art Department (req. Paint program)	24.
Paper Airplane Construction Kit	24.
Typing Tutor III (learn to type!)	35.

## SoftStyle

Colormate Art (Colormate images)	29.
Colormate (color printing utility)	49.
Bluestart (IBM printer driver)	29.
Epstart (Epson printer driver)	29.
Laserstart (Hewlett-Packard Laserjet)	59.
Decision Map (make better decisions!)	85.

## Software Discoveries

Record Holder (data manager)	special
------------------------------	---------

## Software Ventures

Microphone (communications)	65.
-----------------------------	-----

## Solutions, Inc.

Glue (creates "print to disk" capability)	35.
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## Springboard

Art a la Mac Vol. 1-People and Places	23.
Art a la Mac Vol. 2-Variety Pack	23.
Easy as ABC (ages 3-6, letters)	29.
Early Games (ages 2-6, shapes, counting)	29.

## State of the Art

Electric Checkbook (print checks)	29.
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## Survivor Software

MacMoney (financial planner)	49.
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## Symmetry

Acta (outline/writing desk accessory)	39.
PictureBase (clip art manager, 512k)	45.

## T/Maker

ClickArt Personal Graphics, Effects	each 29.
ClickArt Letters, Publications	each 29.
ClickArt Holidays	29.
Write Now (new word processor)	119.

## Target Software

Merriam Webster's Thesaurus	29.
MacLightning (interactive spell checker)	53.
Medical Dictionary	53.
Legal Dictionary	53.

## MacConnection Special of the Month

through January 31, 1987

### SOFTWARE DISCOVERIES

#### Record Holder

Flexible and easy-to-use data manager. Great for mailing lists and labels, expense accounts and personnel records. Non copy-protected.

- Strong search capabilities
- Preview reports before printing
- Clear, concise manual & help-screens
- Automatic Save feature

For your Mac or Mac Plus \$42.

### Telos Software

Business Filevision (512k, external drive)	199.
--	------

### Think Educational

MacEdge II (math & reading)	28.
Mind Over Mac (5 challenging games)	28.

### Think Technologies

Lightspeed Pascal	89.
Lightspeed C (C Compiler)	129.

### TML Systems

TML Source Code Library	59.
TML Pascal (compiler, req. 512k)	69.

### TrueBasic

True BASIC (fast, flexible & portable)	89.
Algebra, Pre-calculus, Calculus, Statistics, Trigonometry, 3D Graphics, Discrete Math, Probability & Chippendale utilities	each 36.
Runtime (create stand-alone applications)	59.

### Unicorn

Animal Kingdom (ages 6-12)	29.
Decimal Dungeon (math, ages 9 and up)	29.
Fraction Action (arcade style math game)	29.
Mac Robots (pre-school program)	29.
Math Wizard (math games, ages 5-10)	29.
Read-A-Rama (reading, ages 5-8)	35.

### William & Macias

myDiskLabeler (design & print labels)	25.
myDiskLabeler w/color (req. Imagewriter II)	34.

## GAMES

### Activision

Hacker (you're on your own!)	27.
Hacker II (breach Russian computer)	30.
Mind Shadow (Who am I?)	27.
Borrowed Time (murder mystery)	27.
Shanghai (Mah Jongg strategy)	27.
Alter Ego (male or female version)	36.

## Ann Arbor Softworks

Grid Wars (3D graphic arcade)	\$22.
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## Artworx

Bridge 4.0 (sharpen your skills)	21.
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## Avalon Hill

MacPro Football (req. 512k)	32.
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## Blue Chip

Millionaire (stock market)	35.
Tycoon (commodities)	35.
Baron (real estate)	35.
Squire (personal finance, req. 512k)	35.

## Broderbund Software

Lode Runner (over 150 levels)	24.
Ancient Art of War (military strategy)	27.
Toy Shop (create working models)	39.

## Bullseye

Ferrari Grand Prix	35.
Fokker TriPlane Flight Simulator	35.

## Electronic Arts

Archon (arcade strategy, req. 512k)	27.
Skyfox (3D graphics)	27.
One on One/Dr J vs Larry Bird (req. 512k)	27.
Patton-vs-Rommel (req. 512k)	27.
Pinball Construction Set	27.

## Epyx

Rogue (strategy dungeon classic!)	24.
Temple of Apshei (4 levels)	24.
Winter Games (Olympic events)	24.

## Hayden Software

Perplex (scrabble-type game)	24.
Sargon III (9 levels of chess)	29.

## Infinity Software

Grand Slam (tennis, req. 512k)	28.
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## Infocom

Leather Goddesses of Phobos, Moonmist, Ballyhoo, Cutthroat, Hitchhiker's Guide, Planetfall, Wishbringer, Enchanter, Trinity, Zork 1, The Witness (standard)	each 24.
Zork II, Zork III, Sorcerer, Suspect, Mind Forever Voyaging (advanced)	each 26.
Spellbreaker (expert)	29.
Invisiclus (hint booklets)	each 6.

## MacroMind

Maze Wars+ (play via modem or network)	32.
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## Miles Computing

Fusillade (arcade maze)	21.
MacAttack (3D tank simulation)	27.
Harrier Strike Mission (3D flight simulation)	27.
MacWars (3D space simulation)	27.

## Mindscape

Rambo: First Blood Part II	24.
James Bond 007: "A View to a Kill"	24.
James Bond 007: "Goldfinger"	24.
Stephen King's "The Mist"	24.
Racter (converse with your Mac!)	27.
Balance of Power (world politics)	30.

1-800/Mac&Lisa 660U

# MacConnection™

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\*Defective software replaced immediately. Defective hardware replaced or repaired at our discretion. Some items have warranties up to five years.

Please circle 82 on reader service card.



# Ultimate support.

Brataccus ( <i>great graphics, req. 512k</i> ) . . .	\$30.
Uninvited ( <i>mystery adventure</i> ) . . . . .	30.
Deja Vu ( <i>murder mystery</i> ) . . . . .	33.
<b>Origin Systems</b>	
Exodus: Ultima III ( <i>fantasy adventure</i> ) . . . . .	38.
<b>PBI Software</b>	
Strategic Conquest ( <i>multi-user</i> ) . . . . .	35.
<b>Polarware</b>	
Transylvania, Sword of Kadash, Xyphus, Crimson Crown . . . . .	each 15.
<b>Psion</b>	
Psion Chess ( <i>3D and multi-lingual</i> ) . . . . .	31.
<b>QWare</b>	
Orb Quest ( <i>graphic fantasy adventure</i> ) . . . . .	29.
<b>Scarborough</b>	
Make Millions ( <i>business simulation</i> ) . . . . .	29.
<b>Sierra On-Line</b>	
Championship Boxing ( <i>knock 'em out!</i> ) . . . . .	25.
Ultima II ( <i>role playing adventure</i> ) . . . . .	25.
<b>Silicon Beach Software</b>	
Airborne! ( <i>digitized-sound war game</i> ) . . . . .	20.
Enchanted Scepters ( <i>sound &amp; graphics</i> ) . . . . .	21.
Dark Castle ( <i>digitized arcade game</i> ) . . . . .	28.
World Builder ( <i>create adventure games</i> ) . . . . .	42.
<b>Simon &amp; Schuster</b>	
Star Trek—The Kobayashi Adventure . . . . .	24.
<b>Sir-Tech</b>	
Mac Wizardry ( <i>high-rated adventure</i> ) . . . . .	36.
<b>Spectrum Holobyte</b>	
GATO ( <i>submarine simulation</i> ) . . . . .	26.
Orbiter ( <i>requires 512k</i> ) . . . . .	27.
Tellstar II ( <i>No. &amp; So. hemispheres, req. 512k</i> ) . . . . .	45.
<b>Videx</b>	
MacGammon/Cribbage . . . . .	28.
MacVegas ( <i>7 casino games</i> ) . . . . .	34.

## HARDWARE

<b>Apricorn</b>	
ApriCord Mac ( <i>Mac Plus parallel interface</i> ) . . . . .	75.
<b>AST Research</b>	
AST 2000 ( <i>20 MB, 20 MB tape</i> ) . . . . .	1995.
AST 4000 ( <i>74 MB, 60 MB tape</i> ) . . . . .	4895.
<b>Cambridge Automation</b>	
MIDI Conductor . . . . .	69.
<b>Curtis Manufacturing</b>	
Diamond ( <i>6 outlets</i> ) . . . . .	29.
Emerald ( <i>6 outlets; 6 ft cord</i> ) . . . . .	36.
Sapphire ( <i>3 outlets; EMI/RFI filtered</i> ) . . . . .	47.
Ruby ( <i>6 outlets; EMI/RFI filtered; 6 ft cord</i> ) . . . . .	55.
<b>Dove Computer</b>	
<i>Memory Expansion Units</i>	
Mac Snap 524 ( <i>512k to 1 Meg</i> ) . . . . .	159.
Mac Snap Plus 2 ( <i>Mac Plus to 2 Meg</i> ) . . . . .	309.
Mac Snap 548 ( <i>512k to 2 Meg</i> ) . . . . .	469.
<b>Ergotron</b>	
MacTilt ( <i>includes external drive bracket</i> ) . . . . .	75.
MacBuffer 512k . . . . .	369.
MacBuffer 1 Megabyte . . . . .	569.
<b>Hayes</b>	
Smartcom II ( <i>communications software</i> ) . . . . .	89.
Smartmodem 300, 1200 or 2400 . . . . .	call
<b>IOMEGA</b>	
Bernoulli Box ( <i>dual 10-MB w/SCSI</i> ) . . . . .	1869.
Bernoulli Box ( <i>dual 20-MB w/SCSI</i> ) . . . . .	2369.
<b>Kensington</b>	
Mouseway ( <i>mouse tracking pad</i> ) . . . . .	8.
Mouse Pocket ( <i>for your idle mouse</i> ) . . . . .	8.
Mac (Plus), HD, System Saver Cover each . . . . .	9.
Imagewriter (II) Dust Cover . . . . .	9.
AppleTalk Clips . . . . .	11.
Mouse Cleaning Kit w/Mouse Pocket . . . . .	17.

Disk Case ( <i>holds 36 Mac disks</i> ) . . . . .	\$19.
Disk Drive Cleaning Kit . . . . .	20.
Tilt/Swivel . . . . .	22.
Copy Stand . . . . .	24.
Polarizing Filter . . . . .	34.
Surge Suppressor . . . . .	35.
A-B Box ( <i>specify Mac or Mac Plus</i> ) . . . . .	65.
Control Center . . . . .	65.
System Saver Mac ( <i>complete with fan</i> ) . . . . .	65.
<b>Koala Technologies</b>	
KAT Graphics Tablet . . . . .	139.
MacVision ( <i>digitizer</i> ) . . . . .	175.
<b>Kraft</b>	
QuickStick ( <i>Mac joystick</i> ) . . . . .	42.
<b>Mirror Technologies</b>	
FastPort ("SCSI" for your 512k Mac) . . . . .	139.
MagNet 20x ( <i>w/MacServe</i> ) . . . . .	899.
Magnum 20 Tape Backup . . . . .	929.
MagNet 30x ( <i>w/MacServe</i> ) . . . . .	995.
MagNet 40/40(40MB, 40MB tape) . . . . .	2559.
<b>Personal Computer Peripherals</b>	
MacBottom Hard Disk 20MB (SCSI) . . . . .	879.
<b>PKI</b>	
McD 800k External Drive . . . . .	199.
<b>Summagraphics</b>	
MacTablet 6" x 9" ( <i>stylus driven</i> ) . . . . .	265.
MacTablet 12" x 12" ( <i>sketching</i> ) . . . . .	369.
<b>Systems Control</b>	
MacGard ( <i>surge protection</i> ) . . . . .	55.
<b>Thunderware</b>	
Thunderscan ( <i>high-resolution digitizer</i> ) . . . . .	175.
Mac Plus Power Accessory . . . . .	29.
<b>Western Automation</b>	
DASCH RAMdisk 1000k . . . . .	349.
DASCH RAMdisk 2000k . . . . .	399.

## DISKS

<b>Single-sided Diskettes</b>	
<b>BASF</b> 3 1/2" Disks ( <i>box of 5</i> ) . . . . .	9.
<b>Sony</b> 3 1/2" Disks ( <i>box of 10</i> ) . . . . .	17.
<b>Verbatim</b> 3 1/2" Disks ( <i>box of 10</i> ) . . . . .	17.
<b>MAXELL</b> 3 1/2" Disks ( <i>box of 10</i> ) . . . . .	17.
<b>Fuji</b> 3 1/2" Disks ( <i>box of 10</i> ) . . . . .	17.
<b>3M</b> 3 1/2" Disks ( <i>box of 10</i> ) . . . . .	19.

<b>Double-sided Diskettes</b>	
<b>BASF</b> 3 1/2" Disks ( <i>box of 5</i> ) . . . . .	14.
<b>Sony</b> 3 1/2" Double-sided Disks ( <i>10</i> ) . . . . .	26.
<b>Verbatim</b> 3 1/2" Double-sided Disks ( <i>10</i> ) . . . . .	26.
<b>MAXELL</b> 3 1/2" Double-sided Disks ( <i>10</i> ) . . . . .	26.
<b>Fuji</b> 3 1/2" Double-sided Disks ( <i>10</i> ) . . . . .	26.
<b>3M</b> 3 1/2" Double-sided Disks ( <i>10</i> ) . . . . .	27.

## INFORMATION SERVICES

<b>Compuserve</b>	
Compuserve Information Service . . . . .	27.
<b>Dow Jones</b>	
Dow Jones News/Retrieval Membership Kit . . . . .	24.
<b>Source Telecomputing</b>	
The Source ( <i>subscription &amp; manual</i> ) . . . . .	30.

## ACCESSORIES

<b>Automation Facilities</b>	
Floppyclene Drive Care Kit . . . . .	15.
Floppyclene Refill . . . . .	10.
MacPak Complete Care System . . . . .	29.
<b>Clean Image Ribbon Co.</b>	
Clean Image Ribbon Kit . . . . .	12.

<b>Computer Coverup</b>	
External Disk Drive Cover . . . . .	\$4.
Imagewriter (II) Cover . . . . .	8.
Mac (Plus) & Keyboard ( <i>two covers</i> ) . . . . .	10.
<b>Diversions</b>	
Underware Ribbon ( <i>iron-on black transfer</i> ) . . . . .	9.
Multi-color Transfer Ribbon . . . . .	19.
ColorPack ( <i>includes Colorpens</i> ) . . . . .	19.
<b>Environmental Software Company</b>	
<i>'MACATTIRE (Rip-stop nylon covers)</i>	
External Drive Cover ( <i>400k or 800k</i> ) . . . . .	7.
Imagewriter (II) Cover . . . . .	11.
Wide Imagewriter Cover . . . . .	13.
Mac (Plus) & Keyboard Cover . . . . .	15.
Laserwriter Cover . . . . .	17.
Mac (Plus) & HD20 & Keyboard Cover . . . . .	18.
<b>I/O Design</b>	
Imageware II ( <i>Imagewriter II carry case</i> ) . . . . .	59.
Macinwear Plus ( <i>Mac Plus carry case</i> ) . . . . .	69.
<b>Innovative Concepts</b>	
Flip & File Micro ( <i>holds 25 disks</i> ) . . . . .	9.
Flip & File ( <i>holds 40 disks</i> ) . . . . .	18.
<b>Innovative Technologies</b>	
The Pocket Pak ( <i>holds 6 disks</i> ) . . . . .	9.
The Easel ( <i>holds 20 disks</i> ) . . . . .	12.
The Disk Directory ( <i>holds 32 disks</i> ) . . . . .	18.
The Library ( <i>Carousel, holds 80 disks</i> ) . . . . .	29.
<b>Kalmar Designs</b>	
Teakwood Roll-top Case ( <i>holds 45 disks</i> ) . . . . .	15.
Teakwood Roll-top Case ( <i>holds 90 disks</i> ) . . . . .	22.
<b>Magnum</b>	
Mouse Mover ( <i>let your mouse ride!</i> ) . . . . .	14.
<b>Moustrak</b>	
Moustrak Pad ( <i>standard 7" x 9"</i> ) . . . . .	8.
Moustrak Pad ( <i>large 9" x 11"</i> ) . . . . .	9.
<b>Ribbons Unlimited</b>	
Imagewriter Color Ribbons . . . . .	5.
Imagewriter Ribbons Six Pack . . . . .	25.
<b>Smith &amp; Bellows</b>	
Mahogany Disk Case ( <i>holds 90 disks</i> ) . . . . .	28.
Mac Plus Pack ( <i>covers &amp; disk case</i> ) . . . . .	39.

## OUR POLICY

- We accept VISA and MASTERCARD.
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**Continental US:** For printers and drives add 2% for UPS ground shipping (call for UPS Blue or UPS Next-Day-Air). For all other items, add \$2 per order to cover UPS shipping. We will automatically use UPS 2nd-Day-Air at no extra charge if you are more than 2 days from us by UPS ground. **Hawaii:** For printers and drives, actual UPS Blue charge will be added. For all other items, add \$2 per order. **Alaska and Outside Continental US:** Call 603/446-7711 for information.

# Celebrate!

(Our Rock Bottom Prices.)

No if's, and's, or but's.

At MacConnection, we bend over backwards to offer you Macintosh add-ons and software at low prices. With service and support that's guaranteed to keep all your ducks in a row. Because, when it

comes to the Macintosh, we know which end is up. Here are just a few of the products that keep our customers smiling.

## Graphic Standard.

**Cricket Graph** from Cricket Software gives you professional graphics in a wide range of bar patterns, plot symbols, fonts, sizes and styles. You can easily pull data from word processors, spreadsheets or databases, and then size and place it however you like.

**Forms and functions.**

**FileMaker Plus** from Forethought

FileMaker Plus \$159



is a powerful database manager and a versatile forms generator. It comes with templates for invoices, purchase orders, mailing labels and other common business applications, so it's easy to get started.

## Collect your thoughts.

The **Acta** outline processor from Symmetry will capture and organize your latest flashes of genius—even when you're in the midst of another application. Outlines can be cut and pasted into other programs, and powerful

search and sort features help track down lost thoughts.



Acta \$39

## Bottom Lines.

### Rags to Riches Ledger

is the foundation of Chang Lab's highly acclaimed line of

accounting software (which also includes **Payables** and **Receivables**). The brand new version features macros for importing data, clairvoyant search fields, and a wide range of printing styles and fonts.



Rags to Riches Ledger \$125

# MacConnection<sup>TM</sup>

14 MILL STREET, MARLOW, NH 03456 1-800/Mac&Lisa or 603/446-7711



Now you can read messages 16441 through 16491 as if they had accumulated since your last visit. Enter *read new* at the Forum prompt, and press the Return key at the end of each message to see the next one.

When you post a message in Forum, you may use the *reply* command or the *add* command. Using *reply* attaches the message to the one you just read. In this way each reply to a message is collected into the "thread" of related messages. If your message is about a different subject, use the *add* command to begin a new thread. You can tell when you are reading a message that is part of a thread because it will say at the bottom "Enter FOLLOW for related Message(s)."

Here's an example of using the *add* command to begin a new thread:

```
FORUM>Read, Reply, Menu,  
Exit> add
```

```
To: mouseketeer
```

```
Subj: Jim's PageMaker Ripper
```

```
Topic? MUGS
```

Please enter your message below.  
CTRL/Z when Complete.

*Alf, is Jim going to talk about his program for extracting text out of PageMaker documents at the next MUGS Online meeting?*

```
peter
```

```
^Z
```

```
Message 16231 Stored.
```

```
FORUM>Read, Reply, Menu,  
Exit>
```

The ^Z indicates end of message and is typed by holding down the Command key while pressing Z. Some terminal programs use the Option key, or Shift plus Command for this purpose. If you can't seem to get the ^Z to work, type/exit instead.

The subject line of a message should be descriptive because it will be carried on all messages that are replies and because you can search for threads based on what appears in the subject line. When you are adding a message addressed to nobody in particular, address it to ALL.

Using *reply* is similar to using *add* except that you need not specify the subject or topic. Also, the reply will be addressed to the person whose message you are replying to unless



you type in someone else's name.

Let's say you post a message and then come back the next day. If someone has replied (which is very likely) you will be greeted with "You have new Forum message(s)" as you enter ICONtact. When you go to Forum, you'll again be told that you have messages waiting along with advice to "Press RETURN to READ WAITING messages." Pressing return gives you only messages addressed to you. If you want to read other new messages too, you type *read new* instead.

If you want a quick look at messages waiting for you or new messages posted since you last stopped in, the *directory* command is handy. Type *dir new* or *dir waiting* to see a list by message number, sender, addressee, topic and subject. The *dir* command also can be used to search for specific messages. For example

```
dir from jeffs 12000:12100
```

lists all messages sent from JEFFS in the range 12000 to 12100, while the more complex command:

```
dir from jeffs to mouseketeer  
12000:12100 subj "disk test"
```

lists all messages sent from JEFFS to MOUSEKETEER in the range 12000 to 12100 and containing the phrase "disk test" in the subject line.

Another handy tip for quick access to ICONtact is to record the data you are receiving from Delphi on your disk and use the command *read new nonstop* to gather all messages. Then log off Delphi and take your time reading messages without paying connect charges. When you find messages you want to reply to, log in again to send your replies. You can specify a message number in the reply command to attach your reply to a specific message without having to reread it.

In addition to messages posted directly by ICONtact members, we maintain an active two-way link with Usenet and ARPAnet INFO-MAC, the worldwide noncommercial networks. Messages from these networks and replies are posted in a special topic called "Network Di-

# DIRECT ICONTACT

gests." These messages and excerpts from other topics of ICONtact Forum are edited into digests, quite condensed from the original traffic but nevertheless a tremendous source of information.

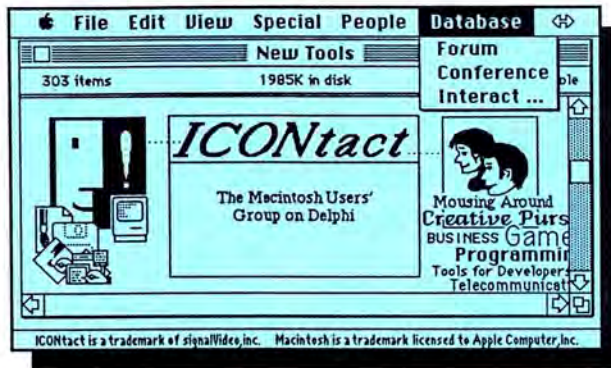
## PROGRAMS BY WIRE

The Database area of ICONtact contains a large compendium of programs and other files pertaining to the Macintosh. Although we don't have every Macintosh program you might find on local bulletin boards, we keep up to date with what people around the world are doing with noncommercial software and user-supported software. We have programs uploaded by some of the most talented Macintosh programmers around, and we have permission from many authors who are not yet ICONtact members to put their works in our data base. The ICONtact (Database) is managed by Jeff Shulman (Delphi name JEFFS), who is assistant manager of ICONtact.

ICONtact is also an licensed electronic distributor of programs and files from Apple. *System* and *Finder* updates are posted in the "Business" topic of the Database, and the Software Supplement files appear in the ICONtact Developers' Group (you get there by typing *dev* at the MAC menu; it's a separate group in its own right). We also have a special section in the Database for commercial software that we make available by arrangement with publishers. You can purchase this software online by downloading it and Delphi automatically bills you a surcharge to cover the cost of the software.

You arrive in the Database area by using the command *database*. You'll see any Database announcements posted since you last visited the data base. Then you are asked which topic you want to access. The same topics are used in both the Database and the Forum areas of ICONtact.

Once you have picked a topic, there are four commands you will use most frequently. The *directory* command displays a list of file groups in the topic, newest groups first, including date of posting, type of files contained in the group, and



This MacPaint logo of the ICONtact group is available for downloading from the Database.

the Delphi name of the person who submitted the files. The *read* command is used to obtain a more detailed description of a group and also gives you access to the list of files in the group so you can download them. If you don't say which group you want to read, the *read* command begins with the newest group in the topic. The third command is *search*, which you use to find files that match keywords you specify. Finally, the *set* command allows you to switch to a different topic without leaving the Database area. Here's an example of using the *read* command:

```
DBASES:Use> (Dir, Read, Set,
Exit) read diskinfo
Name: DISKINFO 1.43
Type: PROGRAM
Date: 7-JUL-1986 21:23 by
DDUNHAM
[ Updated 7-JUL-1986 05:58 by
DDUNHAM to version 1.43. Re-
ports free memory more realistically,
and is smaller.
Doc file is unchanged. ]
DiskInfo(tm) ... (the rest of the
description appears here) ... Written by
David Dunham.
```

Keywords: DESK, DISK INFO, SEARCH, FILES

```
Contents:
1 DISKINFO 1.43 (Size: 15232)
2 DISKINFO DOC (Size:
23040)
ACTION (Next, Down, Xm,
List) xm 1
Type three consecutive <Control-
C>'s to abort.
```

OK, receive! (15232 bytes = 119 xmodem blocks, non-text)

At the ACTION prompt you can download a file using the *xmodem* command, as shown in the illustration, or the *kermit* command. If the

file contains only text, you can *list* it. You select the file you want from a numbered list by using the number in the command, but once you have started downloading files using (say) *xmodem*, the Database software automatically uses the same protocol for the next file in the group if you simply hit the return key after each download is complete. Using XMODEM and Kermit protocols prevents errors in file transfer, so you should use one of those in preference to the *list* command. If your terminal program allows both XMODEM and Kermit transfers, experiment to see which you prefer to use.

When you are finished with the files in a group, the *next* command will read the description of the next group in the topic, so you can easily continue downloading files. If you want to skip around, exit from the ACTION prompt and enter a *read* command specifying another group.

If any of this seems complicated, don't worry. You can always get help by posting a message in Forum or by sending electronic mail to JEFFS or PEABO (that's me).

## DOING YOUR PART

The data bases rely on user submissions. Here's how you can contribute. First you use the *workspace* command to enter your personal workspace and use *xupload* (or *kupload* if you use Kermit) to upload your files to your workspace. When you have prepared all the files in a group this way, you use the *submit* command to send them to the Database PREVIEW area along with the description and keywords that should be applied to the group.

File groups in PREVIEW are not yet accessible to the public. The

system operators download them first to make sure there was not a problem during your upload, and we may also contact you by electronic MAIL if there was a problem or we need more information about the files. When the group is ready, they will move it into the topic you specified when you submitted it and prepare an announcement to alert people to the new group.

ICONtact's policy is to get in touch with the author of a program or file whenever possible in order to obtain permission for the file to be in our Database. If you are the author, then your submission of the files is considered explicit permission for us to put them in the Database, but if you are not, we'd like you to tell us how to get in touch with the author. Some files contain notices sufficient to establish permission; if that is the case we need not check with the author.

If you have files you think are appropriate for the data base and you don't want to spend the money to upload them, you can contact the operators about "Free Upload + ," the ICONtact bonus for uploading. Rather than just shut off the billing during your upload, it'll be shut off for a while longer and you can use the extra free time for anything you want in ICONtact. It's our way of expressing appreciation for your contribution to ICONtact!

## CHATTING IN REAL TIME

Delphi Conference (usually just called CO) is where people gather to have a conversation. A Conference group can contain any number of people. Each person in the group can see what others type and make personal comments.

There are two kinds of conference groups. One kind is a Moderated Conference, in which you are expected to listen while conference guests speak or other people ask questions; you bid for your turn to ask a question by typing a single question mark. The other is a free-for-all where you can talk at any time, crack jokes, carry on conversations concurrently with several other people, and generally have a great time. Free-for-all conferences are like Italian din-

## TIPS FOR ON-LINE NAVIGATION

If you're new to the business of modems and telecommunication programs, don't be alarmed by the buzzwords. What you really need to know can be spelled out pretty simply, and very soon it will all seem old hat. First, you need a modem and a terminal program. Although you have to buy a modem somewhere, and your dealer has commercial terminal programs to sell you, it's a good idea to try out one of the many noncommercial terminal programs that are available on disk from Macintosh user groups.

Once you have a terminal program, there are a few details you need to get right. First, make sure the speed you set in the terminal program matches the speed your modem is capable of (300, 1200, or 2400 baud). Usually you'll want to use the fastest speed available, but faster speed sometimes causes errors in the data sent back and forth. When you're selecting a modem to use with Delphi, you should keep in mind that Delphi charges the same rate at all three speeds (it can be as low as 10 cents per minute).

You also need proper settings for the communication parameters. For Delphi, use 8 bits, no parity and one stop bit. Either your program will have a menu for this or it will use these settings automatically. Also, if there is an option for sending "linefeeds" as well as "carriage returns," turn it off; Delphi does not need the linefeeds. The backspace key may be configurable to send backspace or delete. If you dial Delphi directly using the Cambridge number, or if you dial through Tymnet, use delete. Otherwise use backspace. If you follow these rules, you'll be able to get on-line successfully and find out other tips for making your use of Delphi an enjoyable experience.

Delphi uses menus to aid the new user but offers shortcuts for the experts. When you first join Delphi, your "profile" is set to display full menus. (Your profile is a list of settings that tell Delphi how you want it to behave.) If you get tired of that, type the commands */prompt verbose* and */save*. This will change the menus into single-line prompts. Whenever you're at a single-line prompt, you can see the full menu by entering a question mark and pressing return. If you decide you are happier with the menus, */prompt menu* and */save* will restore them for you. Even more assistance is available at most menus; just type *help*.

Getting to the ICONtact group is easy. It is part of the Delphi Groups and Clubs, so just type *group* at the MAIN menu, and type *mac* at the GROUPS menu. You can abbreviate this as *gr mac* for short. If you find you always want to go to ICONtact as soon as you log in, you can make *gr mac* be your default menu by following the instructions in the ICONtact Help section.

Once in ICONtact, the various things you do are all accessed by typing words on the MAC menu. If you turn off your menus, you'll quickly come to think of these as convenient commands. You'll find that many commands can be abbreviated to one or two of their initial letters, making their use very simple. For instance, the *forum* command is *f* and the (database) command is *da*.

ners, except that you don't have to consider yourself outgoing to get into the spirit of things. After all, who can tell that you're really a mild-mannered, serious person when you have just brought the house down with an excruciating pun?

To move to the Conference area, type *conf* at the MAC prompt. This will put you at the CONFERENCE menu, where you type */who* to get a listing of groups and people talking, or type */join 3* to join group 3 (for example). Once in a group, what you type is sent to all other group members as soon as you press the return key. All conference commands begin with the slash character (/) to distinguish them from mes-

sages to the group. Using the commands, you can pick a nickname, send a private message to someone without interrupting what the group is saying, join more than one group at a time, change the name of the group, page someone to join the group, or accept someone else's page.

ICONtact has a 2-year tradition of holding a conference at 10 PM Eastern Time each Sunday. It runs until nobody feels like talking anymore. Usually this is a free-for-all, and the discussion is half about Mac and half about anything you think of. It's a great place to trade rumors and get advice about problems that are too difficult to explain in a Forum ques-

# DIRECT ICONTACT

tion. Sometimes there is a scheduled Moderated conference in this time slot; if that is the case it is announced about a week in advance.

And then there's VCO. That's the original visual/voice conferencing program, invented by Harry Chesley. Some people use this during the Sunday meetings. If you see some funny messages like ~1 (a VCO grin) flying back and forth, you'll know what's going on. Another innovative program developed on Delphi is *InterMac Bumper Ships (IBS)*, a shareware game written by Jeff Shulman and Harry Chesley. You can download the program from the Database and then go to CO when other IBS players are meeting and see who can bump the most spaceships without falling into the sun!

If you want to schedule a conference of your own, put a message about it in Forum and ask us to post an announcement to publicize it. There are several groups of people in ICONTACT who meet on a semi-regular basis. Of course, CO is not just for scheduled events, and if you see someone in ICONTACT that you know from talking in Forum, it's a good way to get better acquainted.

## POSTING MAIL WITHOUT POSTAGE

Although the Forum is a good place for exchanging messages, some messages are not of general interest to the public (remember, every message in the Forum can be read by anyone). In that case electronic MAIL is a better method of communication. You can send MAIL to one or more people; all you need to know is their Delphi names. A mail message is not limited in length, and it is possible to upload a file to your personal workspace in order to send it through MAIL.

Many of the people in the ICONTACT Developers' Group use electronic MAIL to send "beta test" versions of programs they are working on to people who are willing to try them out and report bugs. It's also a good way to exchange articles; this article was reviewed by people across the country during the time it was being written. Electronic mail is far more effective than paper mail for coordinating any kind of creative project.

## TRY IT OUT FOR YOURSELF

We don't have space in this article to get into all the other things you can do in ICONTACT or using other features of Delphi, so we're making a special offer to readers of *MacUser* magazine. If you haven't tried Delphi, we'll sign you up for a Delphi username (usually \$49.95) and give you a complimentary hour of evening use. If you have a Delphi account already but perhaps have not visited ICONTACT recently, we'll give you the free hour anyway; just log in and send Delphi mail to username PEABO saying you want to take advantage of the *MacUser* magazine's special offer.

Here's how you sign up: dial Delphi by voice at (800) 544-4005 (in Massachusetts dial (617) 491-3393) and ask for your local network number and access procedures (you can skip this if you know how to use Telenet or Tymnet; in that case just connect to Delphi through the network). If Cambridge, Massachusetts is a local call for you, you can dial the Delphi computers directly at (617) 576-0862. Once you get on with your modem, press return until you hear a beep and get the prompt "Username:"; respond by typing **JOINICONUSER**. When you are prompted for an authorization code, type **MACUSER**.

The rest of the procedure is a simple question and answer, which will guide you through entering your billing information, selecting your own Delphi name, and giving you a temporary password. You'll have to leave a phone number where you can be reached during the day to verify your account. After verification, that's it! You can log in using your new Delphi name and see what we're all about! Rates are very reasonable: \$7.20/hr evenings and weekends in the US (day rates and foreign rates are more expensive). You can also sign up for the Delphi Advantage Plan to reduce your evening rate to \$6 per hour; contact Delphi for details. Remember, the same rate applies at all line speeds whether you use 300, 1200, or 2400 baud!

If you need a terminal program to get started on Delphi, we can supply you free of charge with a disk containing several high-quality non-commercial terminal programs (try them all to see which you prefer). Call Delphi and ask for the ICONTACT starter kit for *MacUser* readers.

MAIL is virtually instantaneous. You can verify this by sending MAIL to yourself; you'll immediately receive the message saying you have new MAIL. New MAIL is also announced when you log into Delphi (before you even reach ICONTACT), so you don't have to worry about checking your mail all the time.

To get to MAIL, type *mail* at the MAC menu. When you see "MAIL", you will once again be informed if you have new messages, and if you do, type *read* to read them. You type *send* to send a message, filling it out much as if you were posting a Forum message. Other commands allow you to forward a received message to someone else, delete mail you don't want to keep, or extract a message to your personal workspace, where you can download it with XMODEM.

## NOW THAT YOU KNOW YOUR WAY AROUND

While this guide has been very condensed, you should know all you need to use the most important features of ICONTACT. But there's

one other thing: the friendly folks you'll meet here. Even though the ICONTACT membership grows every day, it still has a comfortable atmosphere. Maybe it's the way people choose their names, or maybe it's the ease of use of Delphi. Maybe it's because the Macintosh is a great machine and ICONTACT is full of people who have Macs. Whatever it is, be sure to say "hi" when you drop in; we promise a warm welcome! And don't forget that there's more to Delphi too. The Micro Artists Network is right next door to ICONTACT and offers everyone graphics and computer music with an artistic (and sometimes zany) flair. If you're stuck on a game, check out GameSIG for a clue that's just right for getting going again. There's a spot for MIDI freaks, science fiction buffs, and probably a spot just for your special interests. ☛

PETER OLSON IS A DEVOTED MAC PROGRAMMER. TO SUPPORT THIS HABIT HE WORKS AS MANAGER OF ICONTACT, THE MACINTOSH USERS' GROUP OF DELPHI. HIS DELPHI NAME IS PEABO.

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Name \_\_\_\_\_

Title \_\_\_\_\_

Company \_\_\_\_\_

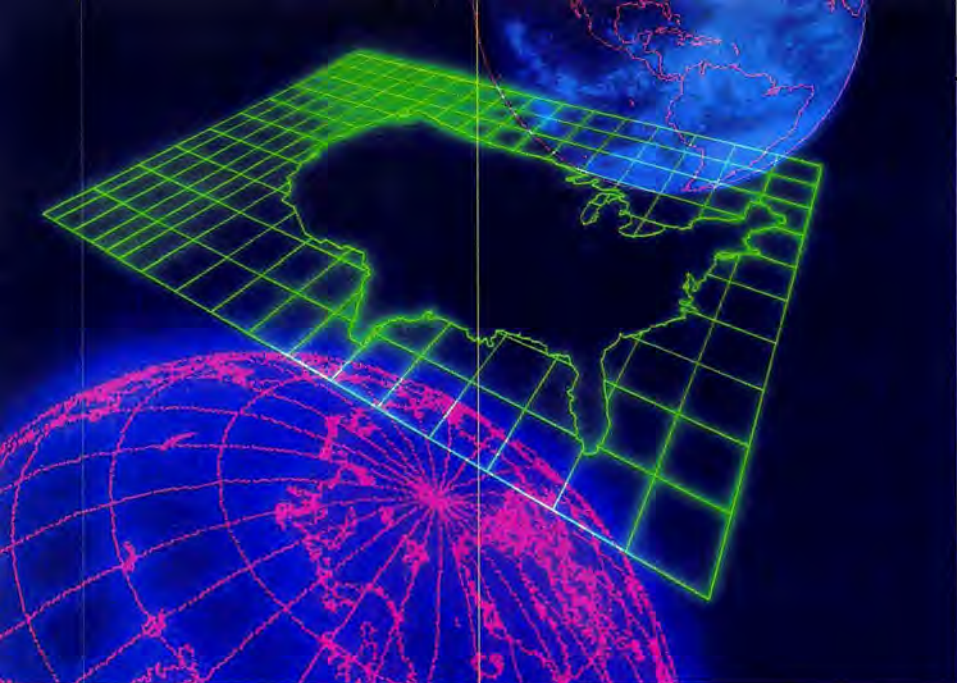
Address \_\_\_\_\_

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# THINKING IN LATITUDES

**MapMaker can put your Mac on the map — or  
maybe it's the other way around?**

ALMOST EVERY SPECIES IS IN some way territorial, but no other apportionments space with quite the dedication of *Homo Sapiens*. Beyond local physical boundaries, we live, for better or worse, in a world defined by geographic, national, cultural, social, and political distinctions. And it has always been so. That's why through the ages cartographers have always found steady employment.

These days, many traditional boundaries have been overshadowed by new lines of demarcation and

maps expressing these new relationships are increasingly important to sociologists, political analysts, and market researchers. However, with the *MapMaker* program from Select Micro Systems and a Macintosh, almost anyone can be a cartographer. *MapMaker* makes possible the production of custom maps that would have won you A's in geography class.

## **GEOGRAPHY 101**

*MapMaker* comes on four 400K

BY CARLOS DOMINGO MARTINEZ

floppies. Though the program uses memory management techniques that optimize the use of available RAM, complicated digital maps can eat memory voraciously. So, the program requires a Macintosh with at least 512K memory. *MapMaker* will run on a single drive Mac, but two-drive operation is more efficient. *MapMaker* is not copy-protected so it may be installed on hard disks without difficulty.

The three other disks contain boundary and data files, the building blocks from which the *MapMaker* images are created.

Each boundary file contains a description of the mathematical relationships that define the outline of the map. When a map is to be produced, *MapMaker* uses this information to compose a properly scaled image in any size.

Boundary files describing the world by country (110 countries divided into 10 geographical sectors), the United States by states (the mainland 48 with Alaska and Hawaii), individual "States by County," 90 major metropolitan area points for the United States, and 169 world capital city points, are on the three disks. *MapMaker* boundaries may be employed individually, sub-divided, or combined.

The data files contain population statistics and demographic information that may be integrated with the map images. The data files for the United States were derived from the data collected with the last census. Population figures, as estimated by World Game Projects, Inc., are provided for each country.

## **THE WORLD ON A DISK**

The files included with *MapMaker*, however, only begin to scratch the surface. Available from Strategic Locations Planning, Inc. (4030 Moorpark Ave. Suite 123, San Jose, CA 95117, (408) 985-7400) are disks with boundary and data files for the United States divided by Zip Code sectional centers (the 600 locations identified by the first three Zip digits), by the 110 telephone area code sections, by metropolitan statistical areas (325 non-rural sections of

the United States), by areas of dominant influence (the major television markets as defined by the Arbitron service), by Designated Marketing Area (the TV markets as defined by A.C. Nielsen), and the major cities in the United States (the 500 cities with population over 50K).

All this data is, as they say in the toy business, sold separately. In some cases the data associated with a particular set of boundary files can be found on more than one disk, which lets you purchase only the disks you need. Also, five-digit Zip Code and census tract boundaries as well as updated census data files are available on a custom basis in a variety of forms. Check directly with S.L.P. about the availability and pricing on these disks and about their custom *MapMaker* Boundaries and data files.

#### NAVIGATING THE PROGRAM

The program behaves like a well-designed Mac program. CREATE A MAP FROM BOUNDARIES, the first option on the Display menu, selects the method the program will use to put together a map. You may choose to use a single complete boundary file, combine several complete files, select a subset from a single file, or select a subset from several boundary files.

For a map of the New York Metropolitan area, relevant counties from two "State by County" boundary files (NY and NJ) need to be combined. So for this map, the fourth option is the choice. Clicking OK displays a standard dialog box from which boundary files may be chosen. Selecting a file presents a second dialog box where individual map features may be selected.

Due to the extensive duplication of names, every county in every state has been assigned a unique identification number by the federal government. These are used by *MapMaker* to identify the individual counties, and are the only designations available in the Feature Selection box. Because my copy of *MapMaker* had no reference information on county names, I had to make maps of each Metro Area state to discover which

numbers corresponded with the counties I needed. However, Select Micro Systems says that a reference list is now being included with the program and that an on-line reference may be added in future versions. In any case, producing your own reference maps is only a minor inconvenience.

When more than one feature from a boundary file is to be used, as with the eight New York and the four New Jersey counties needed for our map, each must be highlighted and selected individually. If scrolling from the top of the list each time is too time-consuming, creating boundary and data disks containing only those files you use regularly, may provide at least a partial solution.

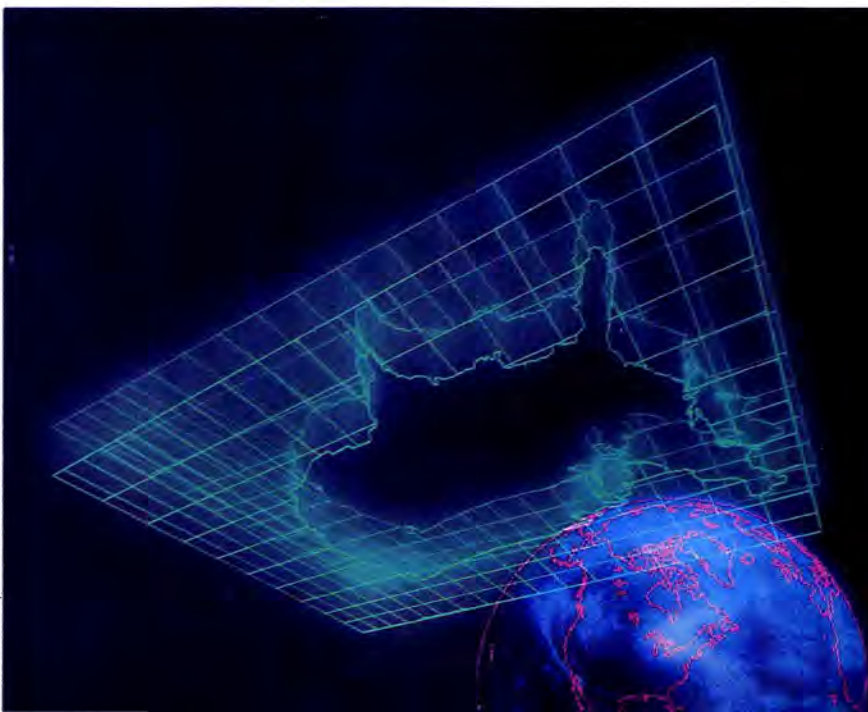
When combining features from more than one boundary file, the program asks you to specify the size of the map image immediately following the selection of the first group. Thus, hitting the DONE button on the Feature Selection dialog box after choosing the NJ counties for our sample moves you directly to the Page Layout screen. Here, *MapMaker* invites you to drag a rectangle over a model page to set the desired image size or to simply select the FULL PAGE option. After sizing the image, *MapMaker* returns to the boundary file Selection Box.

Since image size has already been

specified, pressing the DONE button after completing the selection of any subsequent map features, in our case the NY Counties, only returns us again to the boundary file catalog. This is understandable, since the program has no way of knowing how many different boundary files one might wish to access. The only way out of this dialog box is through the somewhat unorthodox use of the CANCEL button. Press this and *MapMaker* executes the map.

#### HERE BE DRAGONS?

While in most respects the program performed very well, a minor difficulty did surface during use. At the outset the dialog box displaying the boundary file catalog did not operate correctly. When a data disk was inserted in the external drive, its existence was not recognized by the program, the contents of the disk in that drive were not displayed, and the DRIVE button was not activated. (This occurred consistently, though not exclusively, with this particular dialog box. Occasionally, the same problem arose with other dialog boxes.) If the disk in the internal drive is ejected, the external drive is read and the dialog box displays its contents. This method, however, can lead you astray if you eject the data disk and insert another before restoring the program disk to the internal drive.



# THINKING IN LATITUDES

Select Micro Systems are aware of the problem, and suggested another method. Clicking on the "Volume Name," above the control buttons, causes the external drive to be recognized. For the short term, this solves the problem. For the long term, S. M. S. is already at work on a remedy. By the time you read this, the issue should be resolved. S. M. S. said that if the problem can be rectified from within the program, registered owners would be supplied with a modified version as soon as it is available.

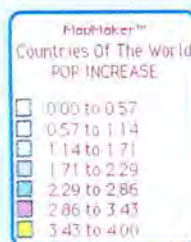
## YOU CAN CHANGE THE WORLD

*MapMaker's* first effort at producing our sample map is, naturally enough, a bit less than perfect. Boundary files are merely the starting point.

Titles and labels can be added by choosing the ENTER/EDIT TEXT option and clicking on the spot where the text is to be located. Double clicking on the map location will speed you into the text entry box. Double clicking on text already displayed on the map will place it in the entry window ready for editing. The legend may be edited by selecting EDIT LEGEND or by double clicking on the legend box itself. And every surface element of a *MapMaker* image, such as the legend, labels or titles, may be moved anywhere on the page simply by clicking and dragging it to place.

To make the sample map more understandable, I transferred the image to *MacPaint* for further enhancement. There, I emphasized the lines depicting state and county borders, lengthened the line between Rock-

A Mercator projection of the world produced by combining the ten boundary files which make up the "World By Country." These same boundary files may be used to focus on any area of the world.



World Population Increase



land and Westchester Counties and drew lines representing the Suffolk County shoreline of Long Island and the opposite shore of L.I. Sound.

Why not just include these features on the original *MapMaker* plot, you might ask? Because when including a feature in a map, it is plotted in its entirety. So adding Suffolk and Fairfield Counties results in a map with significantly different scaling. To emphasize the counties closer to the center of New York City, I omitted the outlying regions, thus altering the basis of *MapMaker's* calculations. Once the map image is determined, it is a simple matter to add the missing parts, for the sake of clarity.

All of which underscores the fact

that while *MapMaker* cartography is not difficult, it does entail some planning. So don't be surprised if several attempts are required before you arrive at the image you need. At least *MapMaker* renders such experimentation virtually painless.

## IMAGE MIGRATIONS

Text or images can be moved in and out of *MapMaker* via the Clipboard, or may also be imported and exported directly. At any step of the map making process, SAVE MAP AS... and SAVE MAP stores the image or updates the disk file in *MapMaker's* proprietary format. I found it a good practice to save an unenhanced map under a file name distinct from that of the map under construction. This will prevent your having to completely reconstruct a map when you need it again, if the enhancement process goes awry, or disaster strikes.

To use *MapMaker* maps with other programs they must be saved as *MacPaint* images. When creating *MacPaint* files, *MapMaker* gives you the option of storing the complete map or simply the (bare outline) base map.

Returning the image to *MapMaker* is not difficult, but it's not straightforward, either. Although OPEN MACPAINT DOCUMENT in the File menu will indeed import a *Mac-*

File Edit Assign Categories Display Fonts Style

Area 1 Name: 34039 Union

Data Set #1, Category Names	Value
1) 1980 Population	504094.00
2) #Persons In Households	499274.00
3) # of Households	177975.00
4) Ave. Persons per Household	2.81
5) # of Families	136375.00
6) Ave. Persons per Family	3.31
7) # of Females	263816.00
8) # of Males	240278.00
9) # of Whites	405560.00
10) # of Blacks	81207.00

OK, OK, Next, OK, Previous, Cancel

*MapMaker's* data entry screen with the Population data for Union County New Jersey. Category #4 was the basis for the data overlay for the New York metro map.



Paint picture, it is not automatically transformed back into a *MapMaker* image. If, for example, we returned our enhanced sample map using this option, the ability to import data files for use with it would be curtailed.

Any *MacPaint* image may indeed be used as a base map, or individual areas added to a map in *MacPaint* may be designated as part of the base map, but other steps are necessary before *MapMaker* will recognize an image as its own. There are two ways to accomplish this and, in the case of our sample map, both procedures were employed.

First, load in a *MapMaker* copy of the unenhanced map. Once this map is on screen, select SUBSTITUTE BASE MAP from the Display menu and choose the *MacPaint* image to be substituted. This will load the *MacPaint* image and designate it as the current base map. Once this is done, *MapMaker* treats the imported image as a *bona fide* map.

As part of its substitution process, *MapMaker* creates a new "active" legend. If you have carried the original back and forth from one program to the other, it is retained as part of the image but is now simply

decorative. When restoring an image back into the program, make certain the original map legend has been removed.

The second procedure is more useful when adding individual areas to a map. For example, although not included as features on the original plot, sections of Passaic and Middlesex Counties are important to our map. With the ASSIGN AREAS option, *MapMaker* will trace their outline and combine them with the other map features. To do this, however, an area must be enclosed completely. That's the purpose of the lines truncating these counties at the edge of our map.

At times, *MapMaker* can be a little particular about assigning areas. When an area is narrow and jagged-edged, the entire outline may not be read. If this occurs, an arbitrary line will be formed at the points where the trace "jumped" from one side of the boundary to the other. When the area is more open-ended, it may seem to be assigned, but will not in fact be recognized by the program. If either of these occurs, simply use the DELETE AREAS/POINTS option and start again. Clicking on another location in the area is usually all that is

necessary to get the program to read the outline properly. Watch for the "outlining" and "flashing" of the area on the screen, the characteristic signals that it has been properly assigned.

## GRAPH AND THE WORLD GRAPHS WITH YOU

*MapMaker* is a custom graph generator, where data is displayed in geographic form. Data can be introduced to any area or combination of areas on a data entry screen by choosing ENTER VALUES from the Assign menu and selecting the place you want the data to appear. The program allows 30 data categories and corresponding values but only ten are displayed at a time. You can toggle between Data Sets in the Categories menu.

ASSIGN COMBINATIONS integrates distinct map zones into single data entry entities. After they have been combined, areas are linked for all evaluative purposes. The component areas cease to exist as distinct data zones, previously entered data is added to the total for the new combination, and subsequent data entry can only be made for the new territory as a whole.

*MapMaker* also lets you specify the organization of the data superimposed on your map. ASSIGN DIVISIONS lets you create up to 35 groupings. You may also specify the data range for each division or let *MapMaker* perform the computation for you.

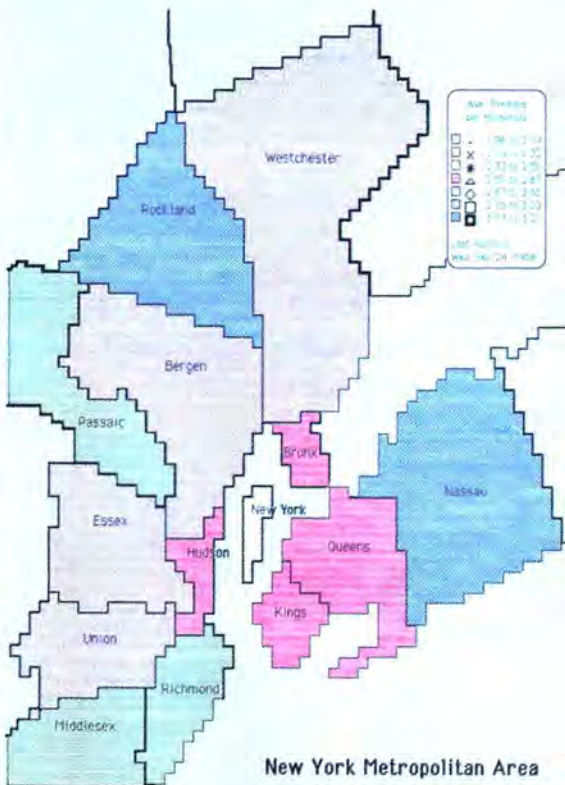
## DATA MIGRATIONS

Data that has been manually entered into *MapMaker's* data entry tables may be transferred out by using the EXPORT DATA option. The "export" operation creates a text file on disk, which may be accessed by other programs. *MapMaker* will query whether the Data Values (the entire table) or Category Names (the data template) are to be saved.

Figures generated within other programs may be brought in with the IMPORT DATA command. To pass through Customs, data must be saved by the original program as a Text file and be properly formatted

(continued on page 170)

Completed map with population data graphed. Changing the number of data divisions shown in the legend would result in a different combination of patterns. Choosing a different data category would change the graph completely.



# Manx Aztec C

## The C for the Macintosh

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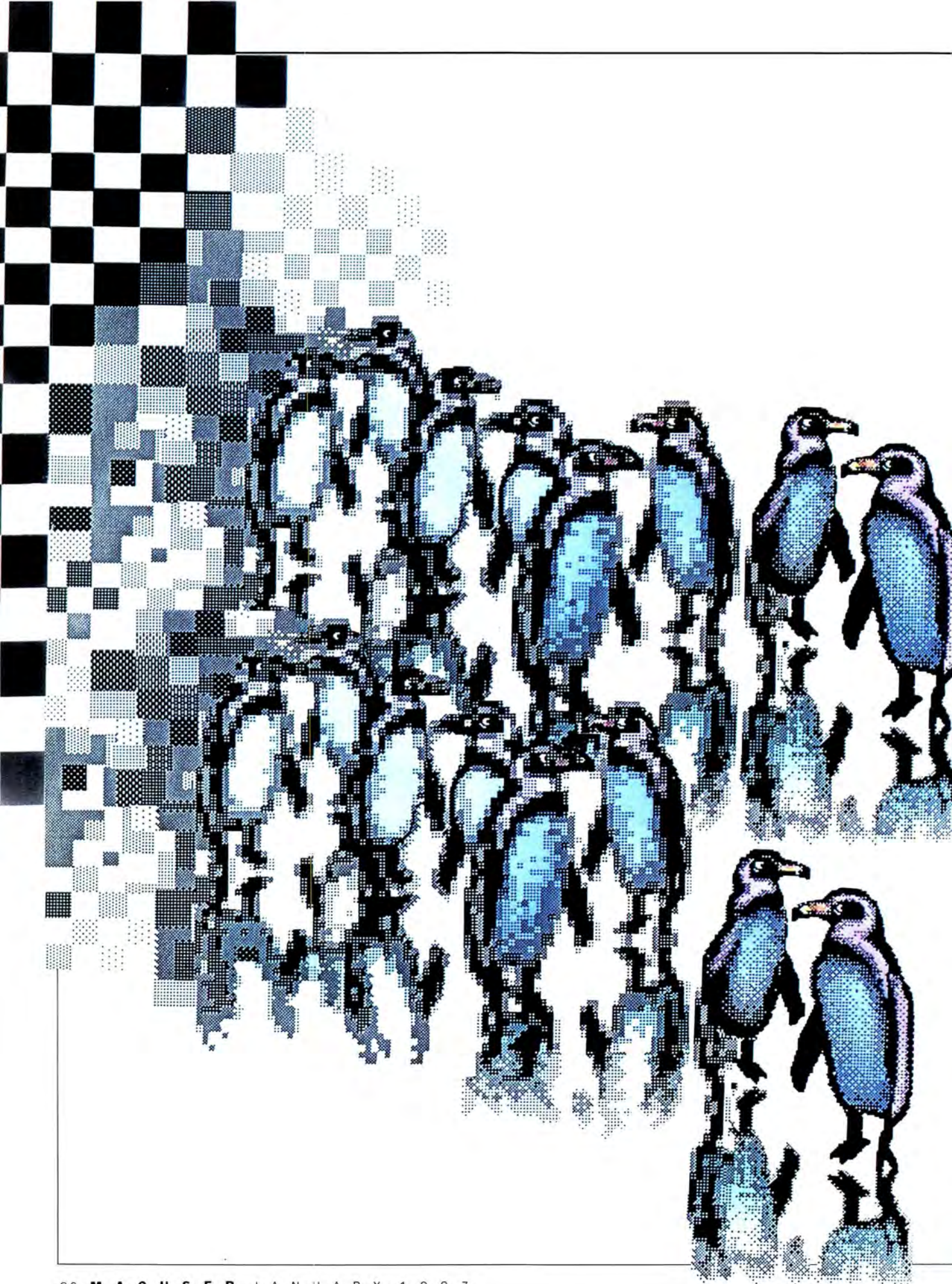
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# NEITHER BLACK NOR WHITE

## GrayPaint is easy to both love and hate.

WELL DOCTOR, HERE I AM again... the same software review syndrome. I thought I had everything worked out, but there's a new program, called *GrayPaint*, and I've got this real love-hate thing with it. You see, it's great because it lets you do what no other graphics program lets you do, but it's really frustrating because ... well, let me start at the beginning.

I was at the Mac Expo, and some

friends were raving about a program they saw that worked with gray tones. Well, you know what happens when I hear about new graphics software, so I went from booth to booth in search of *GrayPaint* until I found the only vendor in the show who carried it. I admit I was put off by the blank cardboard packaging, but I bought it.

### BUYER BEWARE

As soon as I got home I ran the program. Wow, the title screen is really ugly. It even has a typographical error. Okay, I said to myself, don't judge a book by its cover.

Well, maybe this time I should have because, would you believe it, the program's not finished. Some of the menu choices aren't working. My Mac really bombed a couple of times. Nowhere on the package did it say, "Buyer beware, this is a powerful graphics program that's only semi-complete!"

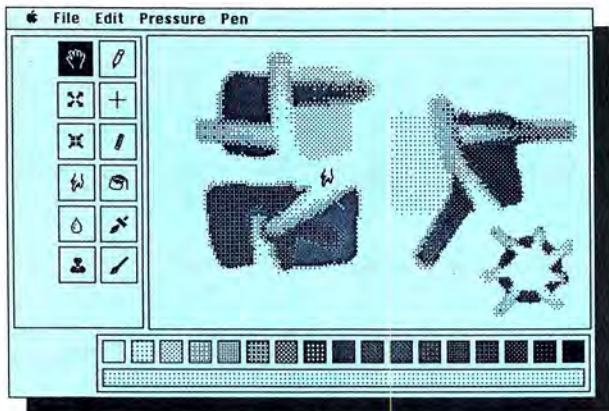
For starters, the documentation, 27 pages of computer printed sheets stapled together at the top, is full of errors. It tells you to use the wrong keys, it shows the wrong icon for a function and it even explains options that aren't in the program.

No problem, right doc? Tell my readers to stay away.

BY ROBERTA SCHWARTZ



# IT'S NEITHER BLACK NOR WHITE



The finger tool is for fingerpainting, Mac style. Note how the gray tones affect each other, depending on where the smear originates.

## FIRST THE GOOD NEWS

But I can't, because what does work is wonderful. You see, *GrayPaint* is a paint system for creating and editing gray-level pictures. In other paint programs, each pixel, with one bit of information, can only be white or black, but *GrayPaint* keeps 8 bits per pixel so each pixel is a level of gray. Command-clicking on any of the 17 grays in the palette changes it to the next darker level. All in all you've got 64 gray levels to work with. You can do nice things with 64 levels of gray!

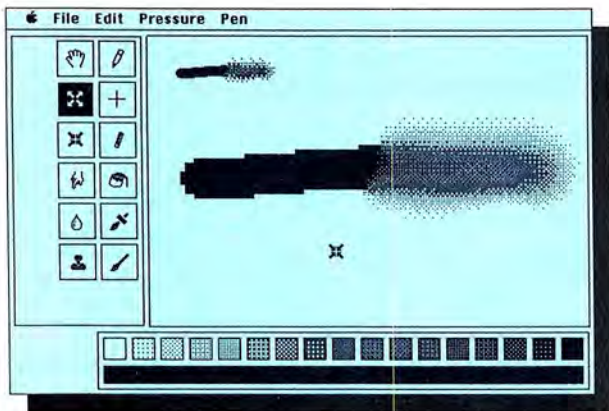
You can load in a *ThunderScan* GrayMap file and just keep building it up or you can load in a standard *MacPaint* document and work on it. There's a snag there, but I'll get to that later.

I love the tools. When you draw with the charcoal stick, you choose a pressure setting and as you keep going over a spot it gets darker and darker. Like real charcoal. The pencil lets you draw with any of the gray tones from the palette. You can command-click on a pixel in your drawing and grab a gray from there.

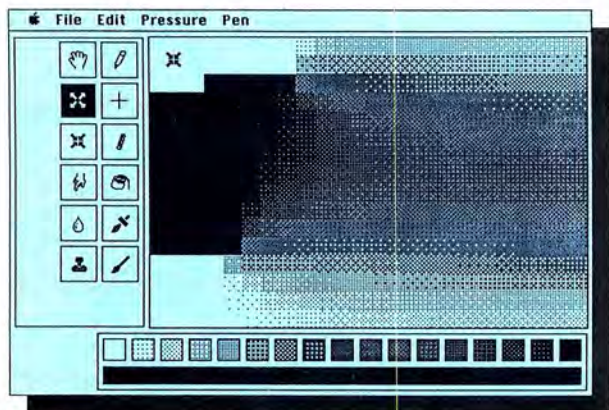
There's an unusual paintbrush. The tip paints a wet or intense shade of the tone while the edges sort of lay down a dryer or lighter tone. There are nine pens or brush shapes to choose from and you're supposed to be able to define your own only that option didn't work. When I tried it, my Mac put on a screen display that rivaled 4th of July fireworks.

I've been saving the best for last. The most exciting tools are the finger and the water drop. With fingerpainting, your cursor is a finger and it smears the picture's gray tones in the direction of the stroke, just like when you use your finger to blend a charcoal or pastel drawing. It's fantastic. The waterdrop is great too. You use it to soften the edges of your gray tones. Using the finger and the waterdrop you can get the most subtle shadings.

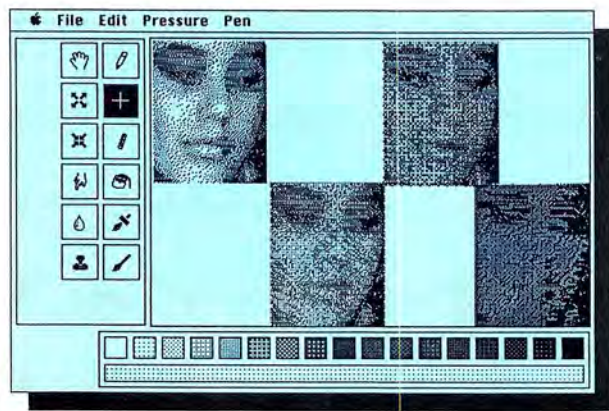
*GrayPaint* lets you save an entire document, or a selected part, as a *MacPaint* document or as a *GrayPaint* document. Be warned though, that *GrayPaint* files are huge! My 19K Einstein *MacPaint* document



The right side of the line has been treated with the waterdrop. The lower line is a magnification of the top one.



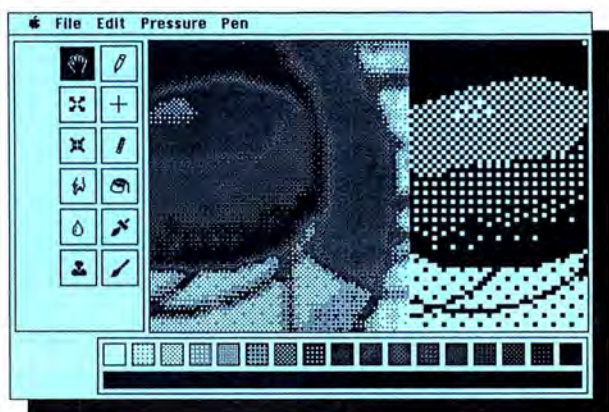
A higher magnification of the line in the previous figure. This view represents the midway point between the actual view and the highest magnification the program is capable of.



This image was progressively made darker, from left to right.



The glass to the left was created with *Easy3D*. Using *GrayPaint*'s "blurring" capabilities, the transitions between gray tones were smoothed out.



The effects of blurring, seen at one of the magnification modes. Note the smoothness of the gray tones in the blurred version (left).

became a 150K *GrayPaint* document. Storing all that information takes up lots of space. Figure on using at least eight times as much space for *GrayPaint* documents.

There're lots of other features, too. You can flip, invert, fill, darken, lighten or blur a selected area. You can keep zooming in and out of your picture and work on it in the different zoom levels.

Did I tell you that I love *GrayPaint*? Well I do.

### NOW THE BAD NEWS

So why can't I tell everyone to get it? Because it's got lots of faults. Like when you load in a *MacPaint* document you get only the top half of it. The easel, (that's the area you're working on) is only a 384 by 256 rectangle. That's small! And doc, would you believe there's no Show Page option. I mean, it's bad enough having to scroll around this little easel to get to different parts of your picture, but never being able to see the whole page? Worst of all, there's

no Undo function. Half the advantage of creating art on a computer is the ability to undo.

And don't forget, it isn't a finished program. You can paste to the Scrapbook but you can't copy from it. I was sure the printing options didn't work until I realized that the program disk doesn't have a printer driver installed on it. The printing options are really nice if you don't mind a system crash here and there. If you want to print those huge *GrayPaint* documents you'd better have the program on an 800K disk or a hard disk. I lost a night's sleep wondering how the user defined palette option works because it isn't discussed in the documentation.

So, maybe I should say it's a bad deal.

### YOU BE THE JUDGE

Still, I can give lots of reasons for getting *GrayPaint*. Load in any black and white image, use the paint brush to add intervening levels of gray and then use the water drop to blend

them together. The finger can smear out any remaining sharp edges and voila!

Touching up digitized images using a paint program used to mean hours dabbling in *FatBits*, but with *GrayPaint* it's a cinch. Images from 3D programs are typically composed of discrete areas and the shading is broken up into distinctive areas. *GrayPaint* is perfect for smoothing the transitions.

You can get lots of special effects too. Load in a *MacPaint* image and then, with the Edit window, lighten it over and over again until the whole picture is soft grays. Save it as a paint document, bring it into a regular paint program and type something over the image. The result is just like a professional surprinted image. Impressive!

So that's it doctor, it's love and hate. Now, what do I tell my readers? Buy *GrayPaint* because it's an exciting and powerful graphics utility? Don't buy *GrayPaint* because it's a buggy, unfinished product? I don't know. I guess I'll just tell it like it is and let them decide for themselves. Thanks doc, I feel a lot better now. ☺

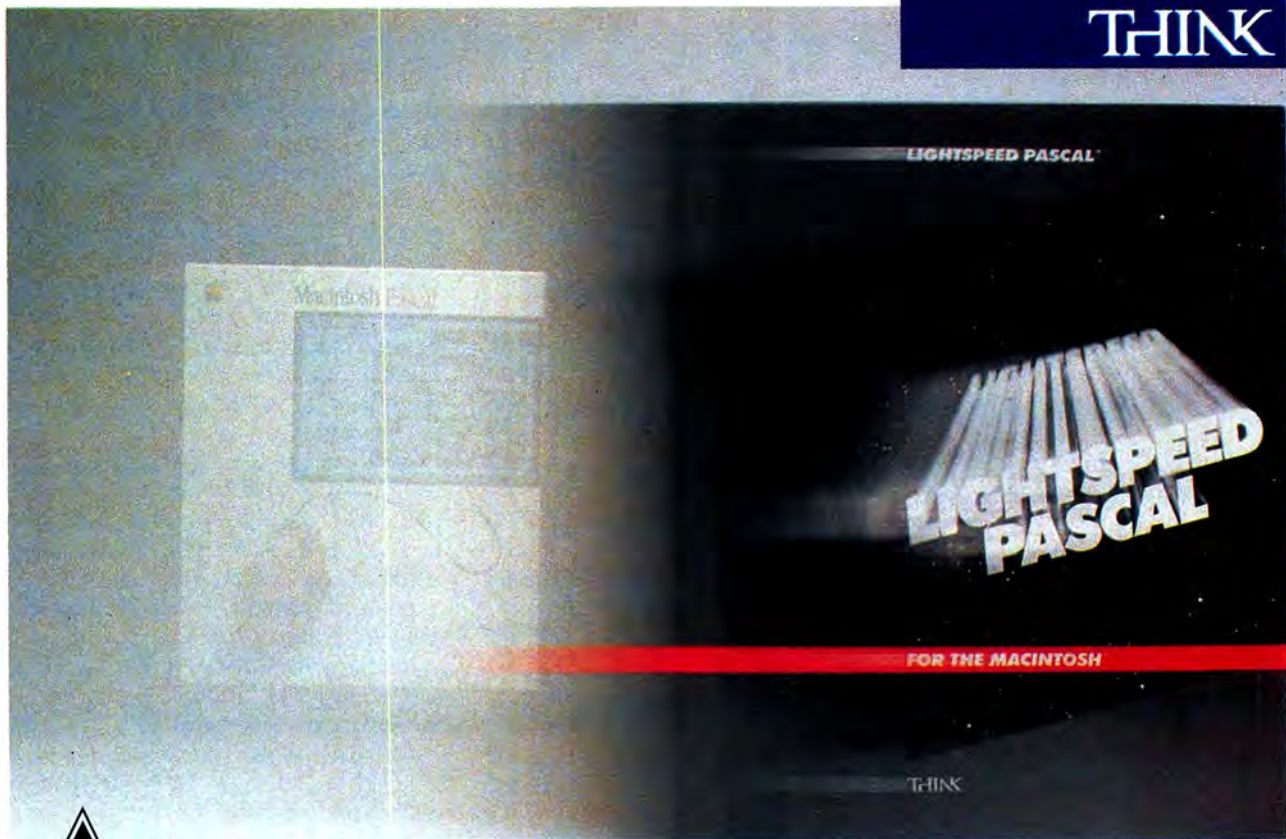
ROBERTA SCHWARTZ IS A BROOKLYN GRAPHIC ARTIST AND WRITER.

## GRAYPAINT

<b>Overall Rating</b>	■ ■ ■ □ □
Follows Mac Interface	■ ■ ■ □ □
Printed Documentation	■ □ □ □ □
On-Screen Help	None
Performance	■ ■ □ □ □
Support	None
Consumer Value	■ ■ □ □ □

**Comments:** A potentially powerful paint utility that lets you paint with 64 levels of gray. **Best Features:** Unique graphics tools; ability to create smooth transitions in graphic objects. **Worst Features:** Unfinished program with many functions that don't work. Loads only half of a *MacPaint* document. Small working area. No Show Page. No Undo. **List Price:** \$59.95. Requires 512K+. 800K disks or hard drive preferred for printing. Published by MacNifty Central, 6860 Shingle Creek Parkway, Minneapolis, MN 55430. (800) 328-0184. Not copy protected.

THINK



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Writing in The New York Times, Erik

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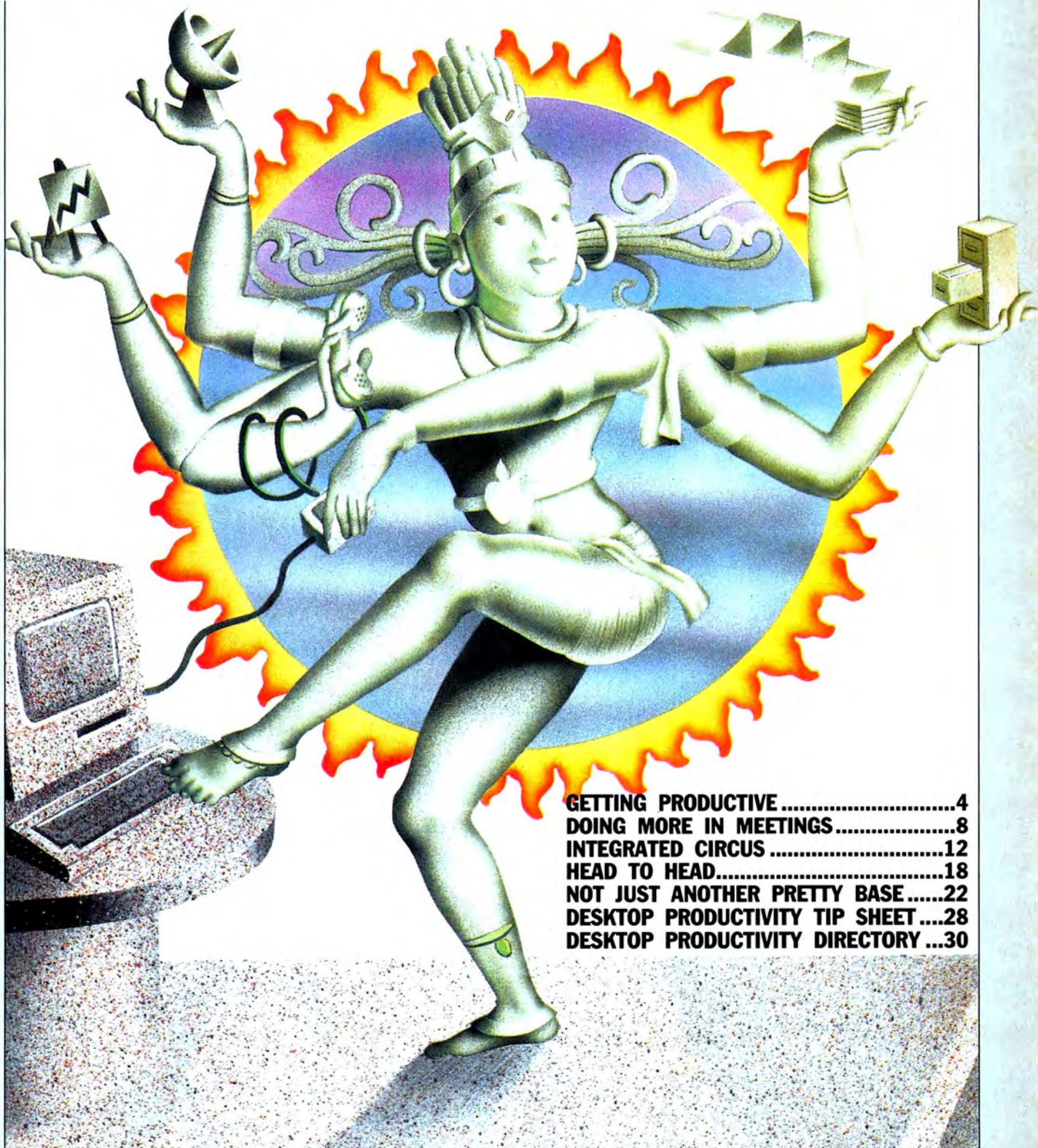
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# DESKTOP PRODUCTIVITY



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# GETTING PRODUCTIVE

SO MUCH HAS BEEN WRITTEN about desktop publishing recently, that many people are starting to believe that that is all the Macintosh is good for. Apple then created other, similar, marketing strategies for Macintosh — desktop communications, with the Mac positioned as a smart terminal to connect to other computers; desktop engineering, in response to the large installed Macintosh base in engineering departments and a tribute to the Mac's graphic power, followed quickly on the heels of communications.

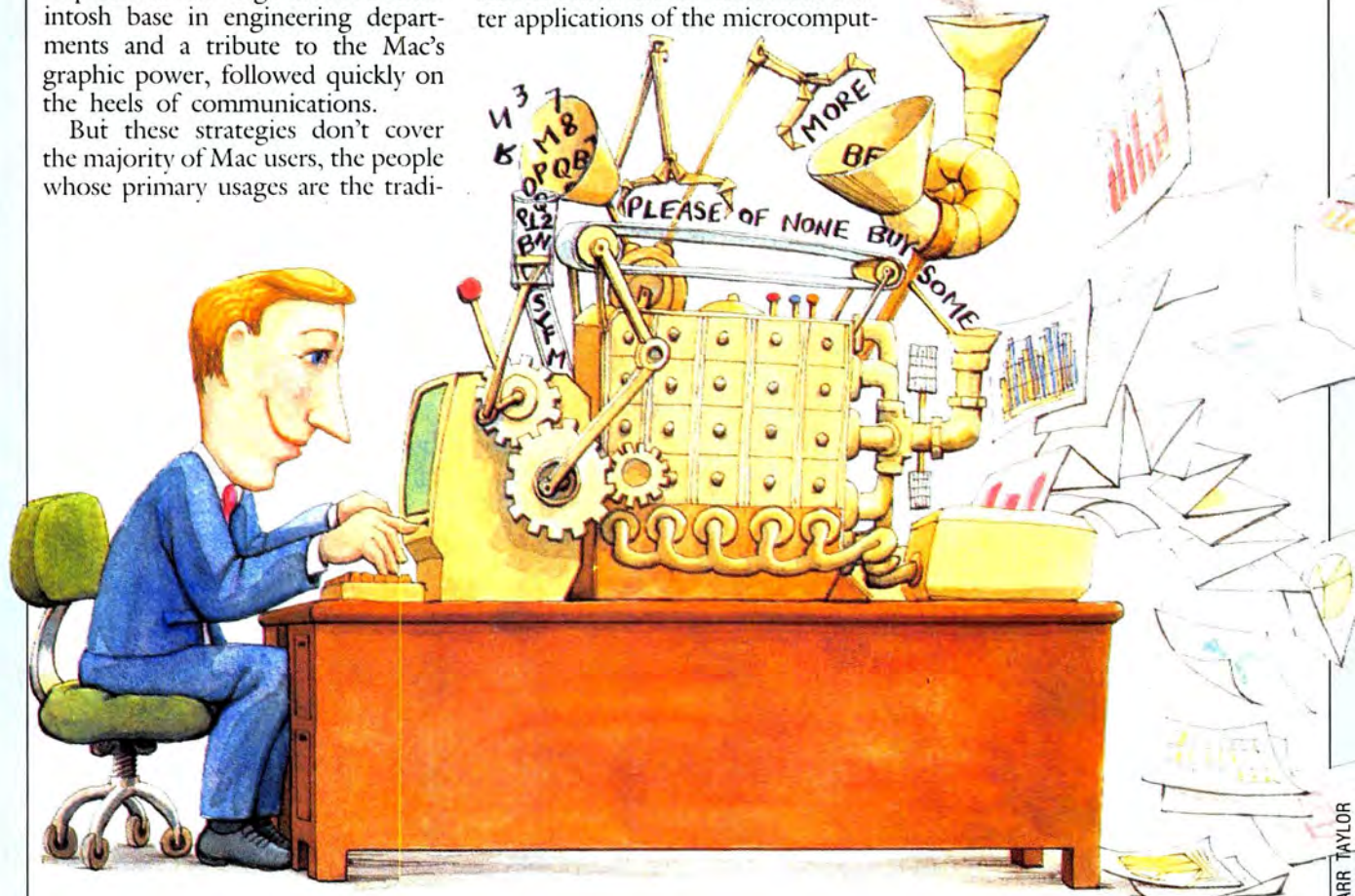
But these strategies don't cover the majority of Mac users, the people whose primary usages are the tradi-

**Apple's new marketing strategy is already paying off for users.**

tional computer justifications: word processing, data bases and spreadsheets. These are the bread-and-butter applications of the microcomput-

er, and they are finally getting the recognition they deserve with their own marketing category: desktop productivity.

Desktop productivity is a simple concept. The use of microcomputers to make a person more productive is the basic principle that has propelled the industry from day one. Desktop



BY ROBERT R. WIGGINS AND ELLEN HIRAME

productivity links and enhances the power of the basic applications computer users use most: word processing, data bases, and spreadsheets. Desktop productivity goes beyond the ordinary productivity gains expected of microcomputer users. It's both a simplification and integration of many concepts and many programs.

The first productivity packages simply took ordinary office tasks and made them faster. Then, as the programmers' skills developed and the designers' horizons broadened, productivity packages added functionality. They were not only faster, but easier to use. Power became the watchword. The constant goals were more power and functionality. And the goals were achieved, but at a high price. The productivity packages often became monsters — large, demanding monsters. They required huge amounts of memory, special machine configurations, and *lots* of user training. Indeed, a whole training industry has grown up to serve the needs of "productivity" software users. Some of the more popular packages take over a month to learn well enough to actually achieve productivity gains. And, of course, these programs rarely communicate their end products to other programs. For example, moving special graphics into your charting program can become a major time-eating project of its own.

The Mac was designed to eliminate most of those problems. The enforced uniform interface cuts learning times dramatically — often by a factor of 10 or more. The standard data interprogram mechanism, the Clipboard, can, in most cases, move formatted data between disparate programs.

What all that means is that the desktop metaphor adds its own productivity gains to those provided by the programs themselves. Indeed, it can be argued that the biggest portion of the large productivity gains reported by Mac users is the result of the cohesive environment the Mac has, and has fostered among the many great applications that it now supports.

## WORD PROCESSING

In the beginning there was *MacWrite*. It came free with every Mac and helped the underpowered 128K machine stay alive until help came along. While *MacWrite* lacked some of the high-level features available in word processing programs on other computers, it was very easy to use and showcased the Macintosh graphic interface. *MacWrite* and *Word* made it clear to anyone who took the time to look that Macintosh

**D**esktop productivity is both a simplification and an integration of many concepts and many programs.

was the only choice for word processing.

Then came the event which is now threatening to engulf the Macintosh universe with word processors: the unbundling of *MacWrite*. It isn't free anymore. Mac buyers, like all micro buyers, must select and pay for their own word processors.

Now the Mac user is faced (or will be soon) with choices like *Mind-Write*, *HabaWord*, *LaserQuill*, *WriteNow*, *Word Handler*, and even *Eg-Word* (for Japanese word processing) and *Fei Ma* (for Chinese). Then there is a plethora of accessories such as spelling checkers, with names like *Spellswell*, *Mac-Lightning*, *Liberty Spell Checker*, *Hayden Speller*, *MacGas*, *Thunder!*, *MacSpell+*, *MacSpellRight*, *The Right Word*, and *Spelling Champion*. And there are special interest products like *Document Compare*, *MacIndexer*, *MacHyphen*, *MegaForms*, and *Quick-Word*.

One reason the Macintosh is such a fantastic word processor is its ability to mix and match a word processing program with spelling checkers

and other accessories to create a customized package. Coupled with the Mac's interface, its graphics capabilities and the availability of multiple fonts, the Macintosh is rapidly becoming the word processor of choice for everyone. Just try to pry one away from a secretary after a few weeks of use.

## SPREADSHEETS

The productivity application that really made the microcomputer market take off was the spreadsheet. Accountants, middle managers, financial analysts, investors and others were suddenly freed from the drudgery of laboriously recalculating rows and columns of figures on green ledger sheets.

The Macintosh makes spreadsheets even easier to use (and therefore even more productive). The mouse makes moving about the worksheet simple, and the always available menus mean no more commands to memorize. Microsoft's *Multiplan* came first, then *Crunch*, then *Excel* (perhaps the finest spreadsheet program for any microcomputer) and the latest, and possibly fastest entry, *MacCalc*. Besides these heavyweights, almost every integrated package is built around a spreadsheet (in fact, *Excel* and *Crunch* are technically integrated packages, but their spreadsheets are too good not to mention here).

As the article "Head to Head" in this supplement makes clear, Mac spreadsheets don't multiply the fastest. However, since they generally work more intelligently (no constant brute-force, entire-worksheet recalculations), they can bring up results faster. They can also import and export their data to a wide variety of programs more easily. Thus, less time is lost making use of the results. And that is what the "productivity game" is all about.

## DATA BASES

The ability to store large quantities of information and easily retrieve it in different ways, or massage the data to answer questions or draw inferences is now a very necessary business ability. Data (getting it,

# GETTING PRODUCTIVE

storing it, finding it, manipulating it and reporting it) is the lifeblood of both the manufacturing and service industries.

The Macintosh lagged behind other microcomputers at first in the data base area, primarily due to the unavailability of mass storage (hard disks), but this is changing fast.

*Business Filevision* offers a unique graphic data base; *FactFinder* is a freeform file manager; MicroSoft's *File* offers some graphic storage capabilities; *Helix* uses icons extensively and like *Omnis 3* provides relational capabilities; and *OverVUE* is a flexible data base. With choices like these and *FileMaker Plus* for easy forms management, *dBase Mac*, *Reflex*, *MacBase*, *Record Holder*, and *dMac III*, people with data storage and retrieval problems can now pick and choose to get the program that most closely fits their needs.

Large amounts of data means large amounts of storage space are needed. The original Mac design made no allowances for hard disks. The first units were expensive and their performance could well be described as clunky. They did a job, but at a horrible cost. Indeed, they were said to be "counterproductive."

One of the major new features of the Mac Plus was its SCSI port, specifically designed to host a hard disk or disks. Manufacturers have responded to the "opening" into the Mac market, and as of press time at least 20 different units were on the market. The worst offers performance two to three times better than the best of the old units, and many are much better than that. And prices are dropping rapidly. Already hard disks can be had for a quarter of the average price of only 18 months ago.

The price bottom has not been reached, either. Since the new Apple IIGS also uses SCSI hard disks, the potential market is much enlarged. It seems reasonable to expect further price drops of 25 to 50 percent over the next year.

## INTEGRATION

Integrated software packages were the first microcomputer programs that specifically focused on produc-

tivity as a design goal. Several different functions were provided in one program, usually with the ability for one function to easily use data that was created by another function of the program, such as drawing graphs of spreadsheet data. Unfortunately, in order to put several applications into one program, it was, and is, often necessary to sacrifice some functionality, so that the whole can be less than the sum of the parts.

Developers of integrated software

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**T**he Macintosh was designed to eliminate most problems that faced early productivity programs on other micros.

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for the Macintosh face an additional obstacle, in that the Macintosh interface is designed to facilitate the sharing of data between programs. Numbers can be copied out of spreadsheets and pasted into word processors and vice versa, and even graphics can be readily moved between applications. So while Lotus *Symphony* on the IBM PC offered (for IBM's) an amazing ability to share data and sold fairly well, Lotus *Jazz* on the Macintosh could only offer some enhancements of an ability already designed into the Mac interface, and sold less briskly.

To date, the only integrated package that has been a huge success on the Macintosh is *Excel*, but its success is more due to its power both as a spreadsheet and a charting program, than to the fact that it also offers integration and a limited data base capability. But this hasn't deterred software developers. Microsoft has just released its integrated package, *Microsoft Works*.

## PRODUCTIVE IDEAS

As microcomputer use has grown, developers have discovered new

ways to make users more productive. One such innovation is "idea processing," or outlining, pioneered by Living VideoText with *ThinkTank*, and more recently with *MORE*, but also available in a desk accessory called *Acta* from Symmetry. By putting ideas, thoughts and plans into outline format, relationships can become apparent, and structure can be forced on the most unstructured mind. While it may be just outlining, it really does cause some "idea processing" to occur. *MORE* takes the concept several steps beyond, allowing information to be presented instantly as bullet charts or in tree diagrams.

Productivity is often best enhanced by creating an entirely new type of program. Outline processors are one of the best examples of this. The idea is not new, but the machine that could support it was always lacking. Outlines are merely words, but words arranged graphically. And for an outline to be useful, the words must be manipulated graphically. Sounds like part of the Mac's design spec, doesn't it?

## WHAT'S THE BOTTOM LINE?

So, haven't we said that any microcomputer is a desktop productivity machine? Isn't that what business computing is all about? Of course it is, but the Macintosh is *the* desktop productivity machine, with the easy-to-learn, easy-to-use and consistent Macintosh interface, with icons and the mouse and pull-down menus. The Cut and Paste capabilities between applications make the Macintosh the most integrated microcomputer, with or without "integrated" software.

Sure, some people buy Macintosh because of its desktop publishing capabilities, some for desktop communications and others for engineering applications, but when you get right down to it, you bought your Mac to be more productive, didn't you? I know I did. ■

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ROBERT R. WIGGINS IS A NEW YORK-BASED COMPUTER CONSULTANT AND WRITER. ELLEN HIRAME IS A NORTHERN NEW JERSEY COMPUTER WRITER LOOKING FOR MORE WORK.



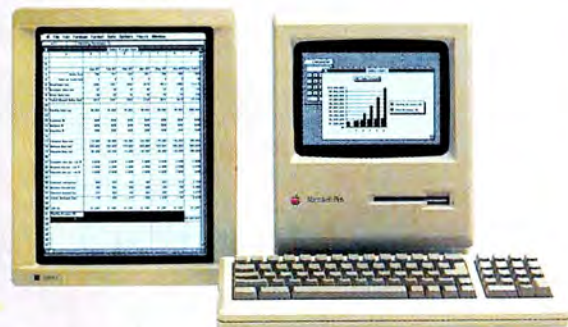
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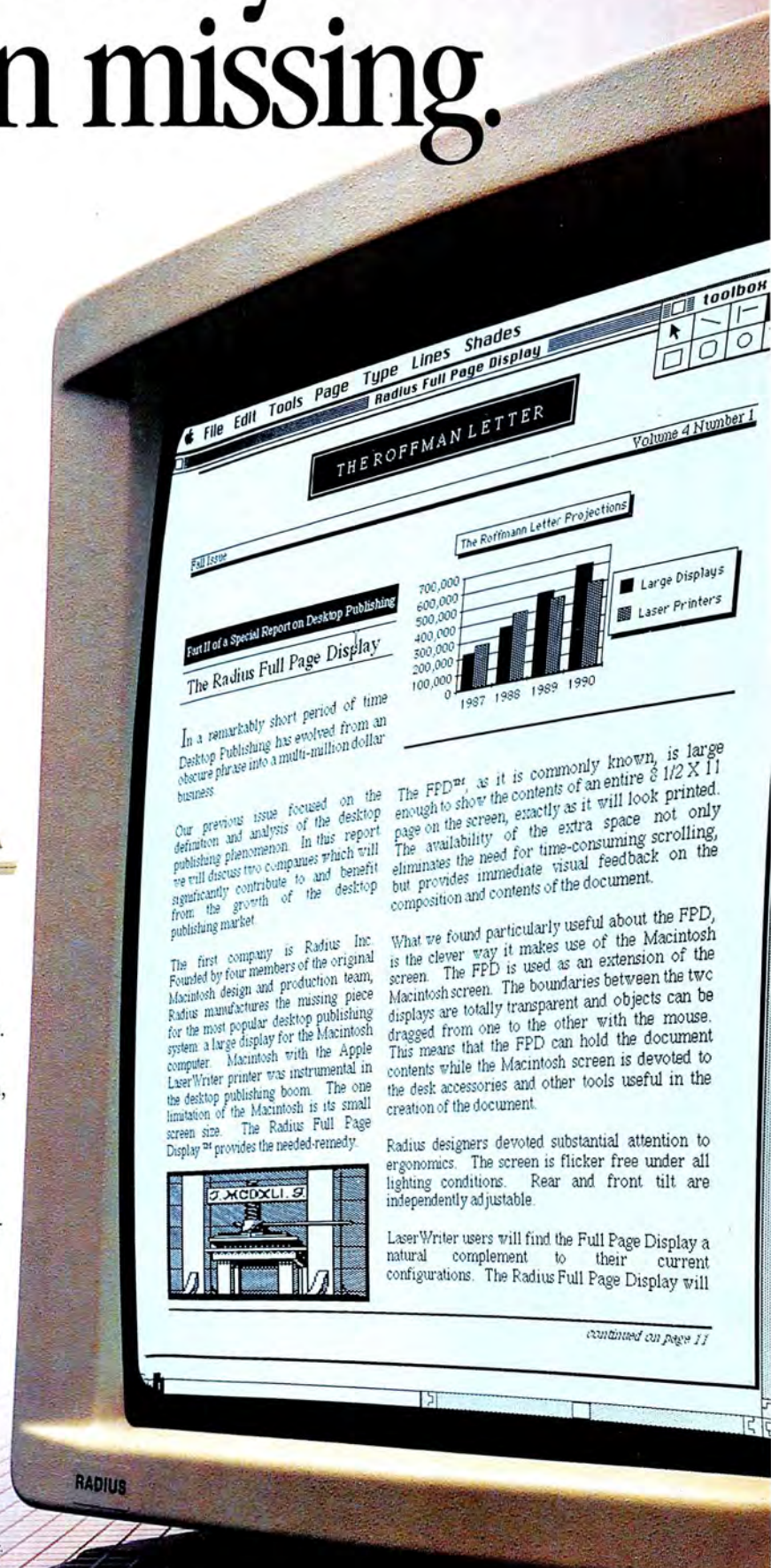
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## RADIUS

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File Edit Tools Page Type Lines Shades  
Radius Full Page Display

Full Issue

Part II of a Special Report on Desktop Publishing

The Radius Full Page Display

In a remarkably short period of time Desktop Publishing has evolved from an obscure phrase into a multi-million dollar business

Our previous issue focused on the definition and analysis of the desktop publishing phenomenon. In this report we will discuss two companies which will significantly contribute to and benefit from the growth of the desktop publishing market

The first company is Radius Inc. Founded by four members of the original Macintosh design and production team, Radius manufactures the missing piece for the most popular desktop publishing system a large display for the Macintosh computer. Macintosh with the Apple LaserWriter printer was instrumental in the desktop publishing boom. The one limitation of the Macintosh is its small screen size. The Radius Full Page Display™ provides the needed remedy.

The FPD™, as it is commonly known, is large enough to show the contents of an entire 8 1/2 X 11 page on the screen, exactly as it will look printed. The availability of the extra space not only eliminates the need for time-consuming scrolling, but provides immediate visual feedback on the composition and contents of the document.

What we found particularly useful about the FPD, is the clever way it makes use of the Macintosh screen. The FPD is used as an extension of the Macintosh screen. The boundaries between the two displays are totally transparent and objects can be dragged from one to the other with the mouse. This means that the FPD can hold the document contents while the Macintosh screen is devoted to the desk accessories and other tools useful in the creation of the document.

Radius designers devoted substantial attention to ergonomics. The screen is flicker free under all lighting conditions. Rear and front tilt are independently adjustable.

LaserWriter users will find the Full Page Display a natural complement to their current configurations. The Radius Full Page Display will

continued on page 11

toolbox

THE ROFFMAN LETTER

Volume 4 Number 1

The Roffmann Letter Projections

Year	Large Displays	Laser Printers
1987	~100,000	~100,000
1988	~200,000	~200,000
1989	~400,000	~400,000
1990	~600,000	~600,000

# DOING MORE IN MEETINGS

BY MICHAEL D. WESLEY

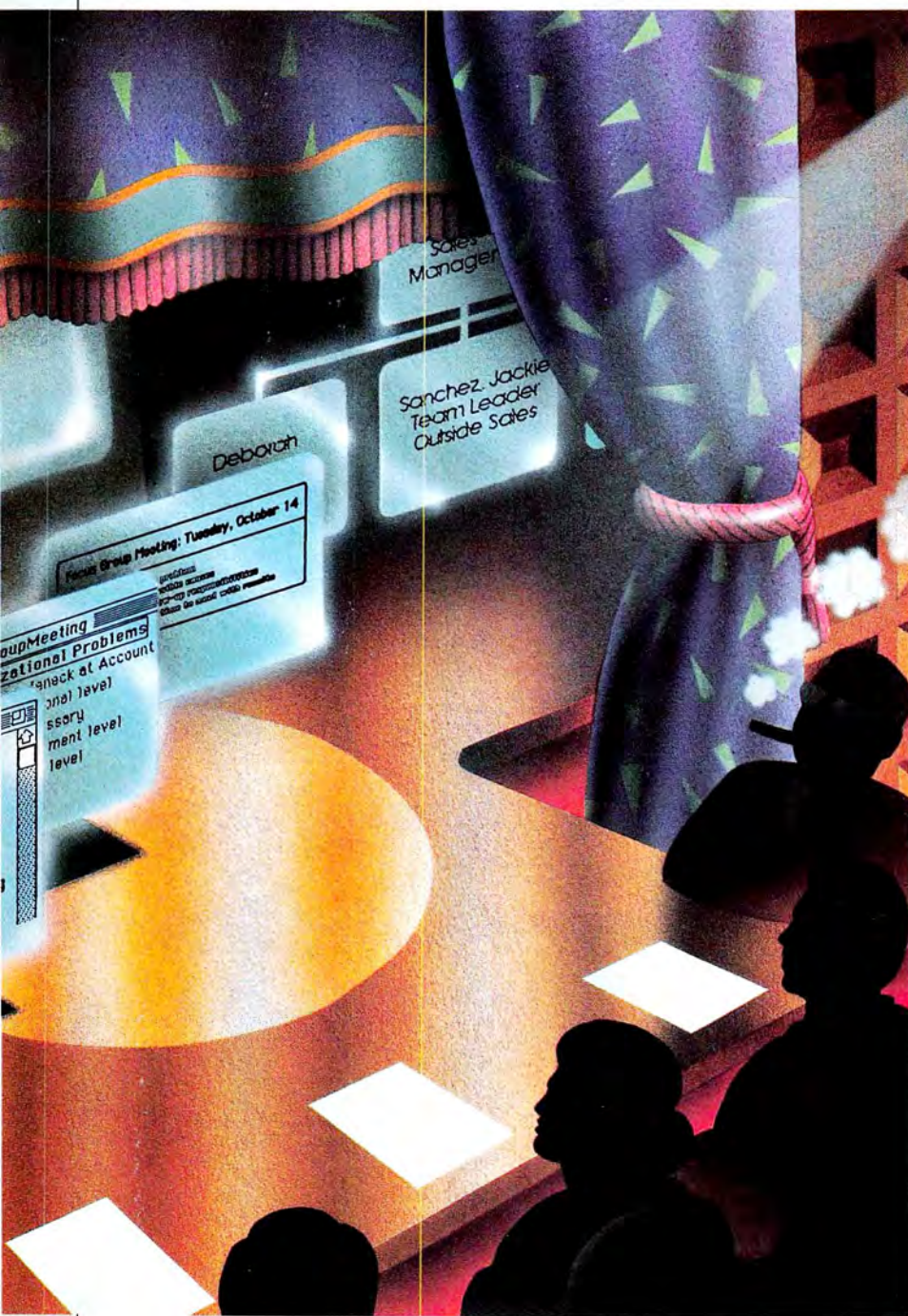
Take MORE into a meeting and get a lot more out of it.

I WENT INTO WEZARD INTERNATIONAL'S staff meeting prepared to be bored out of my skull. Meetings are always dull, uninspired arenas for petty politics, wasteful of time and energy and minimally productive. I usually spend the majority of my time in meetings doodling airplanes or birds, which I know from my college psychology class are images representing a desire to escape.

One time in a meeting I was so bored that I spent the entire 6 hours — okay, so it was probably an hour and a half in real time, but my metabolism clocked 6 hours in meeting mode—calculating how much work we could have been doing if we weren't in the meeting. I figured that any one of us could have accomplished the same amount of work as the group assembled—in approximately one fourth the time.

Anyway, I didn't expect this particular meeting to be any different. I went into it expecting to see flip charts that would soon be covered with Magic Marker hieroglyphics; overhead projectors showing hastily prepared transparencies, a 6-inch pile of largely useless handouts, the usual stuff. I also went in prepared to get as much out of the meeting as I possibly could—I had 200 pages of quality doodling paper and seven fine-point felt pens at the ready.

As it turned out, I was totally unprepared for what happened. I walked into a room set up with only





a table and chairs, a Macintosh computer, a video monitor and a printer. I walked out slightly dazed carrying four sheets of brilliantly organized information and a clear set of goals to achieve over the next several days. I wasn't even aware at the time that I had left behind 200 sheets of doodling paper, untouched.

### FOCUSING IN

The meeting was a focus group, where half a dozen of us met to suggest ways to solve a problem that had been identified at the last board meeting. In this case, it had been noted that our division was consistently late with paperwork and never managed to complete a project on time. The delays had cost the company thousands of dollars over the past 6 months.

Several things had become commonplace in meetings of this type. Discussion quickly strayed off the topic at hand and concentrated on trivial policy issues or political posturing. But there was something different about this meeting—besides the presence of the Macintosh—from the minute it began.

The division manager led the group and established an agenda for the meeting. But instead of having the agenda typed out and giving everyone a printed copy, she used a program called *MORE*, and listed four specific goals on the Macintosh screen. They were displayed in the form of a bullet chart on a large monitor that she had placed right next to her at the front of the table. Her secretary sat at the Mac, freeing the division manager to facilitate the discussion.

The division manager quickly went over the four goals, then spelled out the problem that we were to analyze. The whole time she was talking, the four goals were there before our eyes, reminding us constantly of the task set out for us.

When the division manager finished describing the problem, the screen changed to an outline display. Her secretary highlighted the second goal—Suggest possible causes—and with a couple of keystrokes he had changed the image on the monitor so it showed only the item at hand.

(Pardon me for intruding here, but I need to provide a practical way for me to tell you about specific actions. In this instance, the keystrokes used by the clever secretary are *COMMAND-H* for *HOIST*. This command takes a subhead out and temporarily raises it to title status.)

The group manager had her secretary time stamp the headline on the screen. She gave us a deadline of 15 minutes, then she set us on a course of brainstorming—throwing out ideas without comment or prejudice, just to generate as many possibilities as we could. It took us a minute or two to get away from the personal attacks and snide remarks that were our custom, but once we got used to the idea we all got involved in making (mostly) useful suggestions. The secretary recorded every idea as an item below the main headline—not attempting to organize them yet, just to list them.

At the end of the brainstorming period we had accumulated close to 50 different elements that might be contributing to the problem. We then went back and examined each one closely, evaluating it for merit. We could see each item displayed on the monitor as we worked. The secretary was able to pick up ideas and move them up or down in the list just with the mouse. Through discussion, we were able to eliminate many ideas that had no practical value.

We were also able to combine some of the suggestions with similar points made elsewhere. The secretary would mark topics that seemed similar, then collect them into a group (using *Mark—COMMAND-M*—and *Gather—COMMAND-G*). It was easy to see repetitive points and patterns of thought using this technique. After a few minutes, the list had been culled to a reasonable, workable collection of six key areas that could be contributing to the problem.

The division manager assigned one of us to investigate each of the areas mentioned. The secretary just typed our names under the assigned topic (using *Return* for a new line, followed by *COMMAND-R* to indent the name one level).

I was convinced that the division was shorthanded, so it fell to me to compile a list of all our people and their general responsibilities, as well as to evaluate their productivity over the following week. The secretary typed this information into a notation window below my assignment. (By double clicking on the indent mark next to a headline, the secretary could open a text window for notes.)

We completed the meeting by agreeing to reconvene at the same time in a week. This information was recorded, then the secretary used *MORE* to print a complete list of what we had discussed and gave each of us a copy. I checked my watch on the way out—we had finished in under an hour.

As I was leaving, the division manager's secretary suggested that I get a copy of *MORE* and use it to help me organize my assignment. He needn't have bothered—I had already decided to requisition a copy as soon as I left the meeting.

### MANAGING A PROJECT

I was going to be ready for the next meeting. Using *MORE*, I compiled a list of personnel and their responsibilities. I started to make a list by department, but soon realized that I really needed several lists. The first was a list of everyone by department, organized in a hierarchy and with a detailed breakdown of responsibilities. But I also needed a complete roster, with everyone's name in alphabetical order with their job title. Once created, this list would remain unchanged. I also needed a duplicate of the alphabetical roster to manipulate.

I wasn't very anxious to cut and paste everyone's name into a new list. I was about to give up and use a data base when I discovered that I could actually do everything I needed to with *MORE*. I named the outline "DIVISION PERSONNEL," began with departments as headlines, then listed each person's name, followed by the special character "|" (above the *RETURN* key on the old Mac keyboard; just below the period on the new) and his or her job title. I did this to help with my presentation later on.

# DOING MORE IN MEETINGS

## HOW TO RUN YOUR MEETINGS WITH MORE

### I. Preparation

#### A. Outlining

1. Organize the meeting
  - a. Prepare agenda
  - b. Keep topics and information focused
  - c. Organize into bullet chart to key on issues

Focus Group Meeting: Tuesday, October 14

1. Clarify the problem
2. Suggest possible causes
3. Assign follow-up responsibilities
4. Establish a time to meet with results

#### B. Set up the meeting

1. Mac with MORE
2. Monitor placed in strategic position

### II. Focus group

#### A. Brainstorm

1. Generate ideas rapidly without prejudice
2. Have one person record in outline form with MORE.

#### B. Move things around to identify priorities

1. Use Mark and Gather to identify, collect patterns
2. Hoist to focus on specific issues

#### C. Come to agreement on a plan

#### D. Use time stamping to track progress

#### E. Provide printout of final results before leaving

### III. Project Planning

#### A. Start with results of small group brainstorming

#### B. Organize ideas into a timeline

#### C. Collect data

1. Use MORE as list manager to organize data

#### D. Evaluate

1. Calculate
  - a. time
  - b. resources
    1. make a tree chart to show hierarchies
  - c. costs

#### E. Assemble plan of action with MORE in simple steps

### IV. Presenting the idea

#### A. Organize ideas in bullet chart format

1. Incorporate graphs, charts or other illustrations

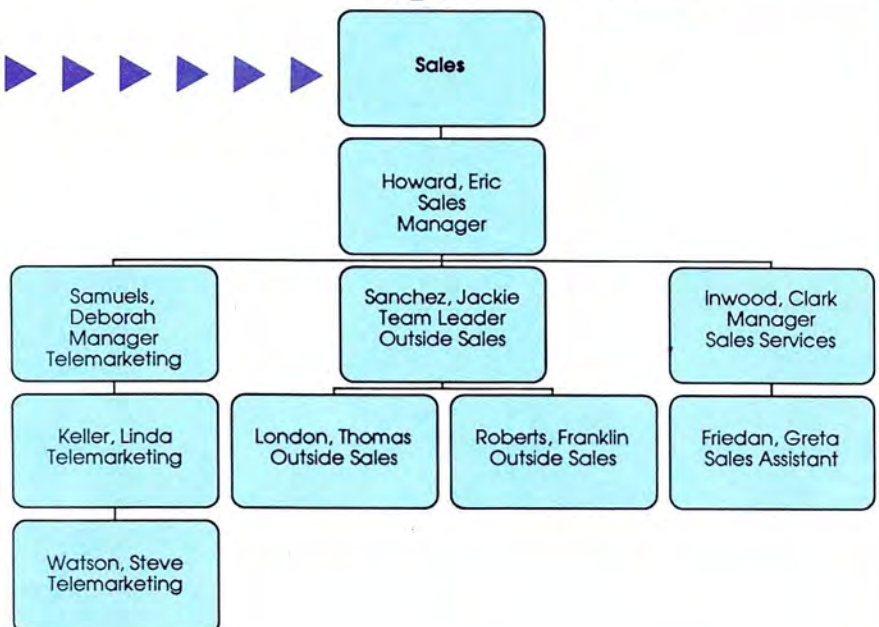
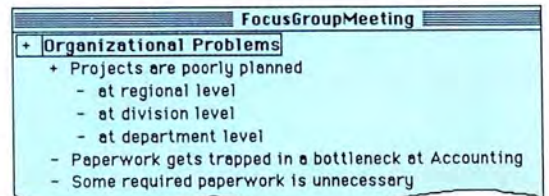
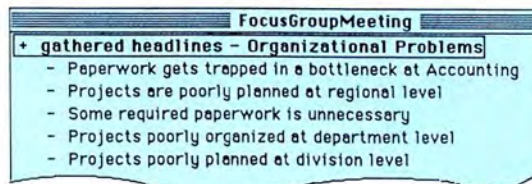
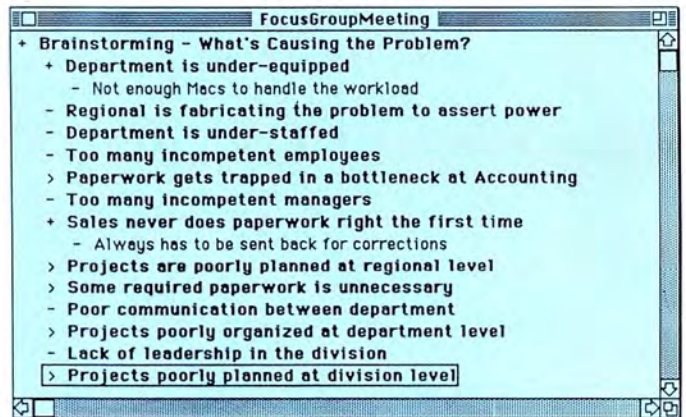
#### B. Proceed through outline as bullet chart once through

#### C. Repeat slowly to give people time to comment

1. Bounce from bullet to outline view to add comments

#### D. Get agreement on each topic before proceeding

#### E. Save changes to incorporate into final project plan



As I entered the information, I used *COMMAND-M* to Mark each of the items that I wanted to put into my second list. When I finished entering everyone's information, I pressed Return to start a new headline and typed *COMMAND-G* to Gather all the headlines I had marked. From the dialog box that came up I selected the option to *CLONE MARKED HEADLINES*. All the items I had marked appeared in a list under the name "gathered headlines." I selected this item, retitled it "Alphabetical Roster," and moved it left to make it a major headline.

I now had everyone's name and job title in one list, but they were still in the same hierarchical order by department and I needed them alphabetized. With the headline Alphabetical Roster selected, I chose an option in the Reorganize menu called *SORT ASCENDING* and the whole list was very quickly reassembled in alphabetical order.

It was on this list that I charted everyone's daily tasks and recorded the approximate time spent on each one. I used *MORE's* built-in calculation to total each person's "time on task." I then made a duplicate of this list to play with.

With my information so well organized, I suddenly discovered several things that I hadn't known before. I was able to see where responsibilities overlapped. Our division wasn't understaffed, as I had believed, but many tasks were being duplicated. Some of our people were overburdened, but others had a marked amount of time that wasn't being used productively. I rearranged tasks in the list, eliminated duplication of effort and found that we should be able to handle every assigned task on time with the staff we had.

It was obvious to me from the breakdown I had done with *MORE* that the primary reason for our current mess was a lack of coordination and communication between departments. Each of the department heads — myself included — had lost track of what the other groups were doing.

Anyway, I cleaned up my outlines and made sure of all my facts. I then used *MORE* to outline a strategy for implementing the changes.

## ONCE MORE INTO THE BREACH

I think the other department heads were a little computer phobic. While all of them had been as impressed as I was with the use of *MORE* and the Mac in our previous meeting, I was the only one who had jumped right into the technology. Needless to say, I wasn't disappointed to discover this. I was all set to blow everyone away.

The division manager had again arranged our agenda on the Mac screen. After a brief restating of the problem, each of us was going to present what we had learned during the week. I was scheduled to go last, so I waited patiently while everyone else brought out piles of paperwork to justify their existence and to promote maintaining the status quo in their departments. (Okay, so I'm biased and it wasn't really that bad, but I have to make a point here.)

When my turn came, I simply put my *MORE* data disk into the Mac and opened my report right on top of our agenda. I was able to go through my original list of employee responsibilities and point out the areas I thought needed to be changed. When I showed the group the time-on-task breakdown, everyone was amazed, including the division manager. To make the presentation more dramatic, I calculated one person's total time on task on screen (by selecting the headline and typing *COMMAND =*).

Then I took my revised list and presented it as a tree chart. The group couldn't believe that I hadn't spent hours preparing the chart, but by using the "|" character in my list, I had set up the information to be displayed properly. All I had to do to get *MORE* to generate the chart was type *COMMAND-J*.

Before anyone had time to react, though, I had jumped ahead to the next step. I quickly returned to my outline and selected the section I had set up to present my implementation strategy. I designed my plan with just a handful of simple goals, such as Reorganize Department Structure. Below each headline I had listed the three or four actions necessary to accomplish the main goal. I then went through each goal as a

bullet chart, giving everyone just enough (but not too much) time to absorb each item.

The bullet chart format made everything so clear that we used it as a stepping off point to evaluate my plan. After the initial presentation, we went through each goal slowly as a group, with everyone having the opportunity to comment or suggest changes.

In several cases someone had an idea better than the one I had suggested, or was able to add something that I had missed. With *MORE*, it was easy to go back into the outline view, change the item under discussion and redisplay it on the bullet chart. We continued this format for the entire plan, only moving on when we had reached agreement. Within a short period of time, we had agreed on all the major goals and on strategies to implement them. Moreover, the division manager put me in charge of carrying out the plan.

## MORE FROM MORE

It is now six months later and I have just been named the new manager of our division, the only division ever to show a 30 percent increase in productivity in such a short period of time and with reductions in expenditures. Headquarters was so pleased with the results we achieved that I have been asked to make a presentation at our annual meeting. There will be over 1500 people there, so I have decided to get a projection system to display my *MORE* bullet charts on a large screen at the front of the auditorium, and set up monitors on the sides so everyone can see.

Fortunately all the outline work is done, as much of my time these days is occupied. I just finished using *MORE* to compile my resume, and I am about to begin writing a business plan with *MORE*. I have this great idea about starting a new company on the side to teach management how to improve their meetings. ☐

MICHAEL D. WESLEY IS THE WEST COAST EDITOR OF *MACUSER*. WEZARD INTERNATIONAL IS A FANCY FIGMENT OF HIS IMAGINATION.

# INTEGRATED CIRCUS

BY JASON GERVICH



AKIO MATSUYOSHI

"LADIES AND GENTLEMEN, BOYS and girls, welcome to the Integrated Circus! Thrill to the dangers of the flying spreadsheet! Marvel at the fabulous tricks performed by the trained data base! Smile and laugh and sing along to the strains of Word Processors on Parade! You'll see feats of daring never seen before in the history of computing! See the battle royal of integrated software! See all the applications you'll ever need assembled under one roof! Step right up ladies and gentlemen, and enjoy the Greatest Show on Mac!"

### CIRCUS OF THE STARS

The most popular program ever released for the Apple II was a piece

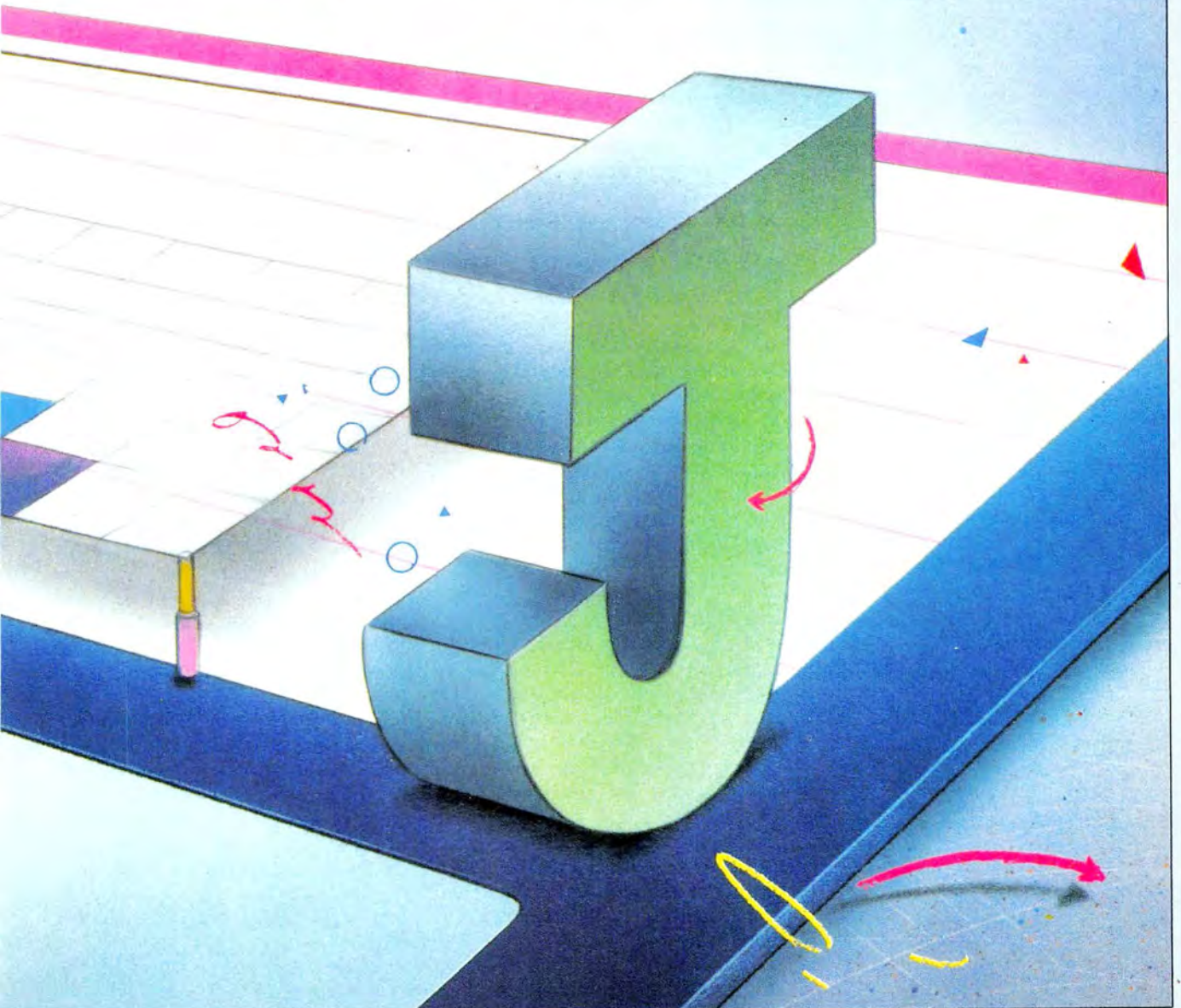
## Are five rings better than four? Here's a head-to-head comparison of MS Works and Jazz.

of integrated software called *AppleWorks*. It combined the three most often used productivity tools — a spreadsheet, a data base and a word processor — into one easy-to-

use program. *AppleWorks* achieved just the right balance between power and ease of use and was eagerly adopted by novices and experienced users alike.

That the Macintosh, noted for its ease of use, has not yet had a similar successful integrated program is something of a mystery. The first *AppleWorks*-like program for the Mac was *Jazz* by Lotus, whose integrated success in the IBM world is the stuff of legend. Although *Jazz* sold and continues to sell reasonably well, it has never captured the imagination of Mac users in the way *AppleWorks* did with the Apple II community.

The biggest problems with *Jazz*



# INTEGRATED CIRCUS

were timing and marketing. *Jazz* was made to play on a stage that was too small. The 512K Mac with its 400K drives really prevented *Jazz* from swinging. In addition, most users were expecting Lotus to come out with 1-2-3 for the Mac and were disappointed when *Jazz* didn't support macros and spreadsheet linking.

*Jazz* should have been touted as *AppleWorks* for the Mac but Lotus was not able to make this connection with its potential buyers. Instead of being perceived as a powerful integrated productivity tool, *Jazz* was looked upon as an inferior 1-2-3. With the release of version 1A, Lotus has significantly enhanced *Jazz's* performance and the company's recent ads remind us that *Jazz* is "More Than a Spreadsheet."

With *Works*, the problems of timing and customer perception seem to have been avoided. *Works* is designed for the 1-megabyte Mac Plus (although it will work comfortably on a 512K Enhanced), and its close relationship with *AppleWorks* is not lost in its marketing plan. Users will be expecting *MS Works* to be *AppleWorks* for the Mac.

Both *Jazz* and *Works* have features that can make life easier for Mac users. How do they compare? Is one clearly better than the other? And if you are looking for an integrated solution, which one is best for you?

## SHOULD I RUN AWAY AND JOIN?

There are two primary advantages of integrated programs:

- You can quickly and easily switch back and forth between several applications.

- All the applications can easily share the same data.

With the advent of *Switcher* and the Mac's standard means of integra-

tion, the Clipboard, these advantages are less significant to a Mac user than to users of other computers. However, there are still benefits to be gained in time and effort saved. It is very convenient to load one program and use it all day, rather than switch applications each time you need to do something different.

If you often switch between a data base and a word processor or a spreadsheet and a graph, you might find it more productive to work with an integrated program than to run two separate applications under *Switcher*.

The major drawback with integrated programs is that each module is usually less powerful than its standalone counterpart. *Word*, is more powerful than the word processor in *Jazz* or *MS Works*. Most people would have an easier time writing a novel with *Word* than with an integrated package. But if your needs can be met with the capabilities of an integrated package, then it can often be the better buy, both in terms of dollars and efficiency.

## SETTING UP THE BIGTOP

Both *Jazz* and *Works* come on 800K disks with a backup. You may copy the disks but will need to insert the master disk for an ID check when using a copy. *Works* will let you install the program only once on a hard disk. *Jazz* allows unlimited hard disk installations. If you have a 512K Mac without an 800K drive, you can request the program in the 400K format from Lotus or Microsoft.

## THE HEAT IS ON

Both *Works* and *Jazz* support the Clipboard for transferring text or graphic images. *Jazz* also has a spectacular feature called HotView. HotView allows you to maintain dynamic linking between documents. If you have some spreadsheet data represented by a graph, you can update the graph by making changes to the spreadsheet. With a HotView link, the graph is automatically updated when the data in the spreadsheet is changed.

Furthermore, you may have a HotView of your graph incorporat-

ed into your word processing document. The graph will be updated in your word processing report, even if the document is not currently opened.

When you move data with Cut and Paste to another module in *Jazz* or *Works*, it is "dead" and will not reflect any changes to the source module. However, it can be edited. HotViews may not be edited directly. Instead they are treated as *MacPaint* art and do not allow any additional text entry or formatting. To "edit" data in a HotView window, you must update the source document.

Since *Works* does not have a HotView, all of its integration is accomplished by cutting and pasting from one module to another. Let's take a quick tour of the programs and compare them module by module.

## IN THE FIRST RING: WORDS

The *Works* word processor is very good. It has many of the features of *Word* combined with the ease of use of *MacWrite*. Like *Word*, it is paragraph oriented and supports the cursor (arrow) keys on the Mac Plus keyboard. You can cut and paste formats, and scroll horizontally as well as vertically. Like *MacWrite*, the *Works* word processor displays the page number in the elevator box and provides a Go To Page menu option.

Above and beyond the usual, the *Works* word processor sets a new standard for integrating art and text. Unlike *MacWrite* and *Word*, *Works* accepts *MacPaint* images as overlays. As a result, you can add text to the side of, or on top of imported artwork. *Works* also supports a drawing feature that will allow you to draw simple lines and shapes around text.

*Jazz* does not provide the drawing and unique art treatment of *Works*, nor does it provide a Go To Page menu option. Unlike *Works*, the *Jazz* word processor does show multiline headers and footers, and graphics can be inserted in either. Both decimal and text tabs are supported by *Jazz*, while *Works* supports only text tabs.

*Works* and *Jazz* both allow for the easy merging of data base fields into



a word processing document to create personalized form letters, and both programs allow you to view either the data base field names or the actual data. *Jazz* also provides fixed printing sizes for mailing and business labels. *Works* lets you configure your own label sizes.

### THE CENTER RING: DATA BASE

This is where *Jazz* really boogies. The *Jazz* data base module is a full-featured program, equal in performance to many standalone packages. You may name and save multiple queries, and each query can contain as many as 100 search criteria. The *Jazz* data base provides a three level sort. In addition, you may select non-adjacent fields and then operate on them as if they were continuous fields. The non-adjacent fields can be printed, cut and pasted, or used in a HotView as if they were adjacent.

*Jazz* provides many options for printing data base records. Records can be printed directly from the screen with or without gridlines and record numbers. They can also be integrated into the word processor where they can be formatted and edited like any text, and updated via HotView. Reports can be printed or saved as a text file.

Creating reports with the *Jazz* data base is somewhat difficult. It's not intuitive at all. Instead of pointing and selecting fields to be included in a report, they must be typed in and formatted individually. Right margins are not seen until a report has been printed.

For all its drawbacks, the *Jazz* data base is still quite powerful and flexible although somewhat difficult to use. Reports can provide statistical information such as count, maximum, average, sum, standard deviation, etc.

The *Works* data base is easier to use but not nearly as capable as its counterpart in *Jazz*. *Works* displays, but does not print, record numbers and there are no statistical functions in the report generator. Therefore, you cannot know the number of records in your data base unless you paste them into the spreadsheet or select the last record. Another limitation is that you cannot preview your

reports. *Works* does allow you to see summaries and subtotals (in the Clipboard of all places!) and you can paste the totals into a word processing document. Only single field sorts are allowed and queries cannot be saved or named.

Both programs feature forms for single record data entry or review. In *Jazz* you may have an unlimited amount of data entry forms for each data base. With *Jazz* forms you can add text instructions and/or comments, determine which fields appear in the form, and print all or a selected group of the forms.

*Works* allows only one form but it is part of the data base and does not have to be opened as a separate document as do the *Jazz* forms. No text instructions are allowed in *Works*, all fields must be present, and the forms must be printed manually, one at a time. *Works* will let you save a group of selected records in a new file, but *Jazz* will not.

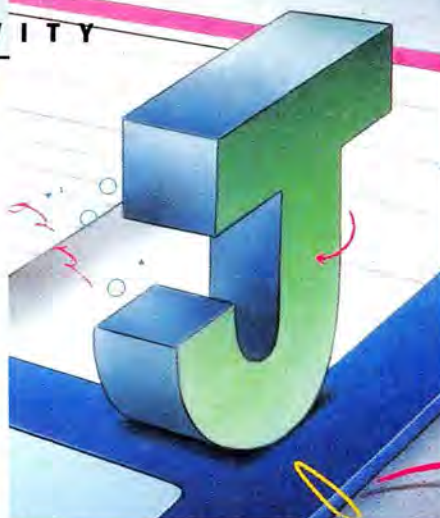
### AND IN RING 3: SPREADSHEET

Both spreadsheets are good and will be enough for many people, although neither provides a macro capability or linking feature.

The *Works* spreadsheet allows you to have horizontally and vertically split screens. You can use the bold-face and/or underline options on any cell or range of cells although you are limited to one font and size (Geneva 9). *Works* formulas are compatible with *Excel* so you can easily import a *Works* spreadsheet into *Excel*. As with the *Works* data base, the spreadsheet displays page breaks and the right margin so you don't waste paper and time getting a spreadsheet to fit on a page.

Perhaps the greatest drawback to the *Works* spreadsheet is the inability to name cells and ranges. It is much easier to work with a formula like  $=\text{Sum}(\text{Principle}) * \text{Rate}$  than  $=\text{Sum}(B2:B5) * E17$ . Although its 54 functions will be all that many users need, they do not contain functions to allow you to work with text or dates in formulas.

The *Jazz* spreadsheet is a real heavyweight, weighing in with 95 functions, the same as Lotus' 1-2-3. In addition to providing the text and



date functions missing in *Works*, *Jazz* allows you to name cells and ranges. It also provides the ability to set and calculate one and two-way table (what-if) and distribution ranges. You can use any available font and style but these affect an entire worksheet. They cannot be altered on a cell by cell basis.

*Jazz* lacks the capability to split windows and show the right margin. When you print "sideways" you must use the trial and error method to fit the spreadsheet to the page. In *Works* you can search a cell for a value or a text string. *Jazz* does not provide any way to search cells.

Graphics functions are part of the spreadsheet in *Works*. In *Jazz* they are separate modules. *Jazz* provides more ways to work with graphs than does *Works*. While its options are not as extensive as *Excel's* you can display several versions of a graph simultaneously and use any of 24 patterns, 14 line styles, and 13 symbols to enhance your charts. *Works* provides limited but adequate capabilities for the average user and allows you to transfer charts to *MacDraw* for additional graphics support.

The biggest drawback to the *Works* graphics module is the selection process. You are presented with a dialog box and have to type in the cell ranges to be charted. *Jazz* uses the easier method of selecting the cell ranges with the mouse.

### THE SIDE RING: COMMUNICATIONS

Communications modules in both *Jazz* and *Works* operate on about the same level as *MacTerminal* although each has some significant pluses and minuses. Neither *Works* nor *Jazz* provides auto-logon macros. *Jazz* offers terminal emulation (VT100)

# INTEGRATED CIRCUS

## WORKS & JAZZ DATA SHEET


Module	Works	Jazz
<b>Installation</b>		
Copy Protected	No	Yes
Hard Disk Install	Once	Unlimited
Cost	299	399
<b>Word Processor</b>		
Orientation	Paragraph	Ruler
Goto Page #	Yes	No
Horizontal scrolling	Yes	Yes
Copy Formatting	Yes	No
Text next to art	Yes	No
Multiline headers/footers w/graphics	No	Yes
Live data from other modules (HotView)	No	Yes
Mail merge	Yes	Yes
Dynamic page breaks	Yes	Yes
Drawing capability	Yes	No
Document Length (512K, Mac Plus)	(70,200)	(18,35)
<b>Database</b>		
Print records without a report	No	Yes
Show record numbers	No	Yes
Name & save queries	No	Yes
Select non-adjacent fields	No	Yes
Change format of existing fields	Yes	Yes
Simultaneous sort levels	1	3
Change fonts/size	No	Yes (Global only)
Bold/underline selected fields	Yes	No (Global only)
Split horizontal & vertical windows	Yes	No
Search fields for text	Yes	No
<b>Database forms</b>		
Auto creation of data entry forms	Yes	Yes
Add text to forms	No	Yes
Print selected records in form format	Manually	Yes
Save & name multiple forms	No	Yes
<b>Database Report</b>		
Name & save reports	Yes	Yes
Preview reports on screen	No	Yes
Break fields	Numeric only	Yes
Statistical functions (Count, Average, etc.)	No	Yes
Report set-up follows Mac interface	Yes	No
Visible right margin	Yes	No
Change fonts/size	No	Yes (Global only)
Bold/underline selected fields	Yes	No (Global only)
<b>Spreadsheet</b>		
Split horizontal & vertical windows	Yes	No
Visible right & left margins	Yes	No
Bold/underline selected cells	Yes	No
Font size/change	No	Yes (Global only)
Print row & column numbers	Yes	Yes
Cell/range names	No	Yes
Total functions	54	90
<b>Graphics</b>		
Number of chart types	5	10
Data for chart selection	Type in cell range	Point & click
Use arrows for pointers	No	Yes
<b>Communications</b>		
Auto dial	Yes	Yes
Auto log-on	No	No
Macros	No	No
Terminal emulation	No	Yes
Direct download to document	No	Yes
Scrolling window	No	Yes
MacBinary	Yes	No
Xmodem	Yes	Yes
Background Operation	Yes	No

and the ability to download directly to a document. It also supports Xmodem but not MacBinary protocols. Communications is the one area where some form of automation (macros) would have been most valuable.

*Works* does provide for the MacBinary protocol but does not allow scrolling or the ability to download directly into one of the *Works* modules. One nice feature of the *Works* communications module is that you can work on another document while sending or receiving files in the background.

### PACKING UP AND MOVING ON

Both *Jazz* and *Works* are worthwhile programs that offer the Mac user a variety of ways to work with many types of information. Which is best? If your needs are primarily word processing, then *Works* should be your choice. If a powerful, flexible data base with sophisticated report generation is what you need, then *Jazz* is for you. Spreadsheet users should choose *Jazz* if Lotus 1-2-3 compatibility is important, or *Works* if they plan to share their data with *Excel*.

On the whole, *Jazz* is a more robust program. It has much more power than *Works* but the tradeoff is that *Jazz* is much more cumbersome to use. *Works* provides an excellent introduction to productivity à la Macintosh with a package that may not have the power of *Jazz*, but is a lot easier to use and more pleasant to work with. 

JASON GERVICH IS AN EMPLOYEE OF APPLE AND A FREELANCE WRITER.

## JAZZ



Overall Rating



**List Price:** \$395. Published by Lotus Development Corp., 55 Cambridge Parkway, Cambridge, MA 02142. (617) 577-8500. Version 1A reviewed. Copy protected.

## MICROSOFT WORKS



Overall Rating



**List Price:** \$295. Published by Microsoft, 16011 NE 36th Way, Redmond, WA 98052-6399. (206) 828-8080. Not copy protected.



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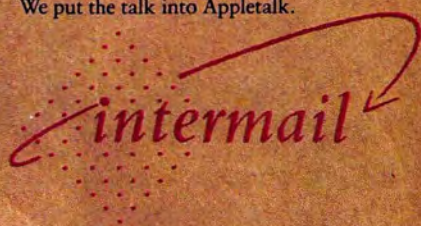
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## EXCEL VS. 1-2-3

# HEAD TO HEAD

BY CRAIG STINSON

MACINTOSH FANATICS HAVE ALWAYS believed that theirs is by far the best machine. At first the belief was wholly emotional, firmly held but unsubstantiated by hard evidence. Then Microsoft introduced *Excel* and they had a reason to believe.

In August of 1986, the Scybold

Group, at the request of Apple Computer, performed a detailed comparative evaluation of Microsoft *Excel* and Lotus *1-2-3* Release 2. Does the resulting report, which runs to about 35,000 words plus tables and graphs, offer quantitative proof of the Mac's superiority? Here is an abstract of the group's findings.

### QUALITY IS JOB 1

The first section of the report focuses on qualitative issues — program designs, standard features and ease of use.

The study sees *1-2-3* as an aging product that has undergone only one significant revision since its introduction in 1983. Lotus' method of improving *1-2-3* over the years has been to acquire attractive third-party products that enhance the functionality of *1-2-3*, then graft those products onto the original. This strategy is summarized in a recent Lotus ad depicting *1-2-3* in a large box surrounded by smaller boxes marked *HAL*, *Report Writer*, *Freelance*, etc.

This approach makes sense for Lotus because it adds functionality to *1-2-3* without making the installed base of two million users change their habits in any drastic way. But it has several obvious drawbacks for users: extra modules cost

more money; grafted—on functionality requires more effort to learn and use than functionality designed into the original product and the Lotus user interface, a model of elegance in 1983, is primitive by the standards of current microcomputer software.

It would be an exaggeration to say that *Excel*, by itself, provides all the functionality of *1-2-3* with its full panoply of add-ons, but *Excel* does have a far simpler user interface, a superior set of graphics tools and a great many spreadsheet features that are missing in *1-2-3*. The advantages of *Excel* over *1-2-3* include the following:

- *Excel's* user interface is consistent with virtually all Macintosh software, so Macintosh users do not have to learn a new command language.

- The fact that *Excel* users select the area they want to operate on, then issue a command enables *Excel* to bypass one whole layer of complexity (the "/Range" command in the *1-2-3* command tree).

- *Excel* warns users if they are about to throw away or overwrite unsaved data (*1-2-3* does not).

- Formulas in *Excel* worksheets can reference cells in other worksheets.

- *Excel* users can create macros "by example" (in a keystroke recording mode) instead of having to type them in by hand.

- *Excel* macros are stored independently of the worksheets in which they are used, thus a single macro can be used in many different contexts.

- *Excel* allows user-defined functions and user-defined display formats.

- *Excel* allows users to paste function names and range names from menus into formulas, so they don't have to remember syntax rules.

- *Excel* allows operations on arrays. This means that users can create results in many cells by means of a single formula, or produce a result from one formula that would require the use of many formulas in *1-2-3*.

- In many different ways, *Excel* reduces the number of necessary keystrokes (and/or mouse actions) required by anticipating user needs.



For example, if the *Excel* user makes a cell entry that looks like a date (such as 8/10/87), *Excel* assumes it is a date and formats it accordingly.

• *Excel* offers a large array of features for customizing graphs. Graphs, moreover, are generally easier to create in *Excel* than in *1-2-3* (although *1-2-3* is easier to use than *Excel* in certain situations), and *Excel* graphs can be printed directly from *Excel* (the *1-2-3* user has to call a separate program to print graphs created in *1-2-3*).

*1-2-3* does, however, have some qualitative advantages over *Excel*. Among them are the following:

• *1-2-3* can print and plot graphs in color. And *1-2-3*'s graphing is easier to use when the data to be graphed do not lie in contiguous cells.

• Navigation to the beginning and ending cells of blocks of data is easier in *1-2-3* than *Excel*.

• Scrolling that involves both lateral and vertical movement is generally easier in *1-2-3* than in *Excel*.

• *1-2-3*, on a standard IBM PC screen, displays more data than *Excel*, in default mode, on a standard Macintosh screen.

• *1-2-3* allows password protection of user files.

Functions available in *1-2-3* but not in *Excel* include three depreciation functions, functions for performing matrix inversion and multiplication and a number of functions for manipulating text.

Functions available in *Excel* but not in *1-2-3* include functions for performing exponential regression analysis and projection, improved date and time functions (that can distinguish weekdays from weekends, for example) and more versatile cash flow functions.

#### YOUR NUMBER IS UP

The second section of the Seybold study looks at quantitative issues of power and speed. We tested *Excel* on a 512K Macintosh and a Macintosh Plus. *1-2-3* was tested in four configurations: on an XT with and without a floating point 8087 coprocessor and on a 6 MHz AT with and without an 80287 coprocessor.

We performed brute force recalculations

	MICROSOFT EXCEL		LOTUS 1-2-3 RELEASE 2			
	Mac Plus	512K Mac	XT	XT w/8087	AT	AT w/80287
<b>Addition</b>						
900 cells	2.3	2.4	9.6	6.8	3.6	2.9
3000 cells	4.5	4.6	15.3	10.7	5.6	4.4
5400 cells	7	7.2	22.6	15.2	7.8	6.1
<b>Multiplication</b>						
900 cells	2.6	2.8	9.7	6.8	3.6	2.9
3000 cells	5.2	5.4	15.3	10.9	5.6	4.5
5400 cells	8.1	13.6	21.8	15.6	7.7	6.2
<b>Exponentiation</b>						
900 cells	17.8	18.2	55.2	7.7	19.1	3.6
3000 cells	57.4	58.1	170.5	13.9	58	6.8
5400 cells	102.3	110.4	301.7	21	102.3	10.5

lation tests (tests in which each cell of a worksheet references an adjacent cell with the same kind of mathematical operation) on spreadsheets of various sizes. Our results, summarized in Figure 1, showed *Excel* to be faster than *1-2-3* on an XT, with or

**Excel proved to be slower than 1-2-3 at reformatting data, slightly quicker than 1-2-3 (on an XT) at clearing data, and slower than 1-2-3 at copying data.**

without the math coprocessor, and comparable in speed to a 6-MHz AT.

We also ran timing tests for a number of typical spreadsheet manipulations that do not involve recalculation. *Excel* proved to be slower than *1-2-3* at reformatting data, slightly quicker than *1-2-3* (on an XT) at clearing data, and slower than *1-2-3* at copying data. Sorting tests yielded the following results:

• With date fields, *Excel* per-

formed quicker than *1-2-3* on an XT and at a comparable rate to *1-2-3* on an AT.

• With real number fields, *Excel* was slightly faster than *1-2-3* on an XT but only about half as fast as the AT version.

• With text fields, *Excel* sorted almost four times faster than *1-2-3* on an AT and more than nine times faster than *1-2-3* on an XT.

#### SUMMING UP

On the basis of our benchmark tests, we would say that performance issues alone are not necessarily the best basis for preferring one program over the other. On the whole, *Excel* competes well with *1-2-3*, but does not overwhelm it. Where *Excel* excels is on the qualitative side of things — the factors that cannot be assessed with a stopwatch, but which contribute so much to the overall utility of a program. And in this department, *Excel* makes *1-2-3* look rather pale.

The results of the study might not be enough to convert *1-2-3*'s two million users to *Excel* on Macintosh, but they provide further proof that the faith of Macintosh fanatics is well-placed.

For information about the availability of the full study, contact The Seybold Group, (213) 320-9151. ☐

CRAIG STINSON IS EXECUTIVE EDITOR FOR THE SEYBOLD GROUP.

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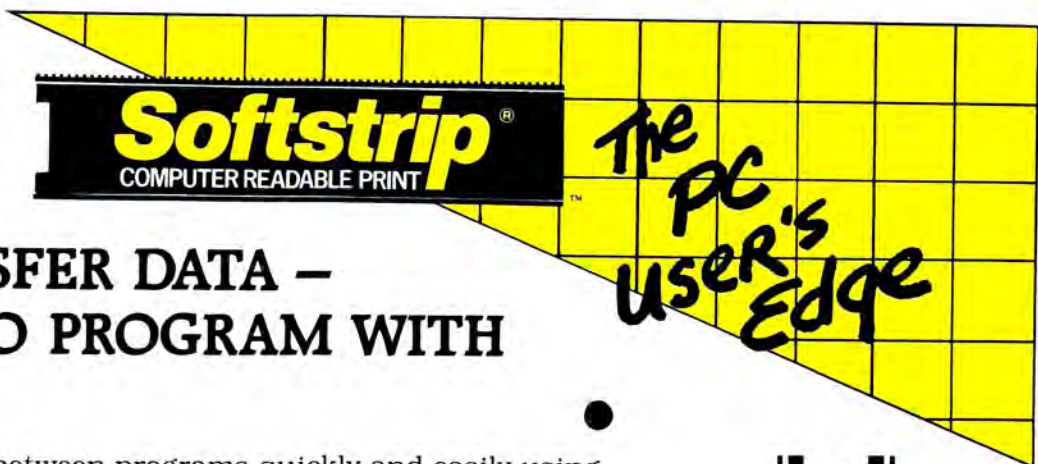


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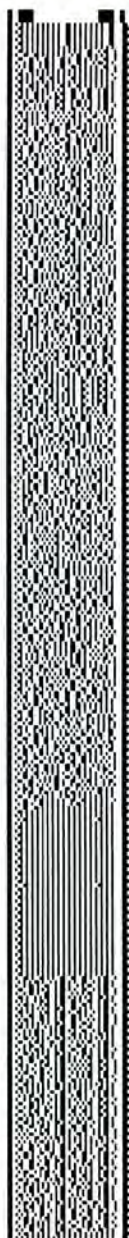
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Duntemann said inclusion of the data strips will let readers spend more time learning the intricacies of working with Turbo Pascal and significantly less time typing in the various programs.

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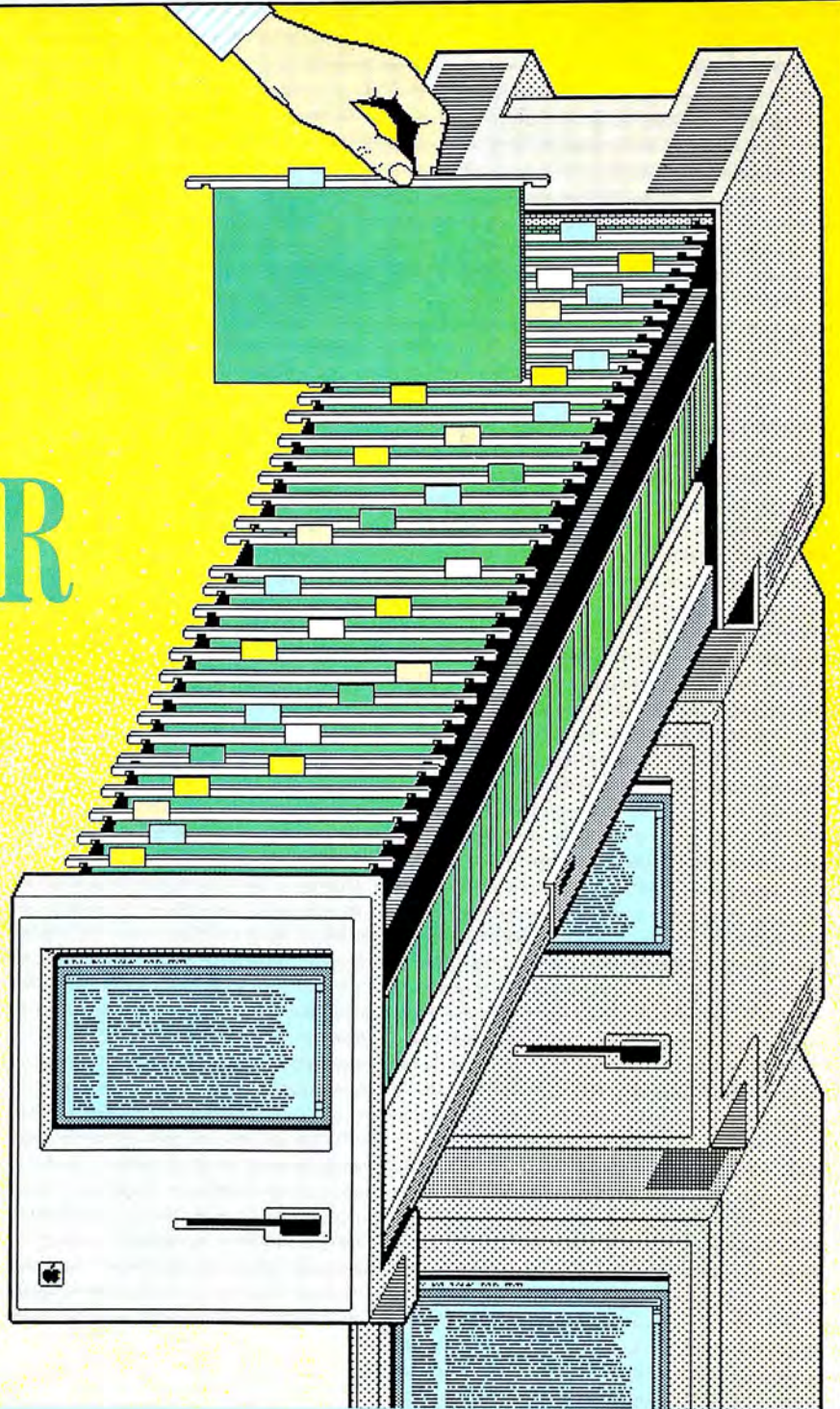
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► BY LÉO AND REBECCA LAPORTE

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I considered the prospect of sitting at the Macintosh all night printing apologies for holding up our customers' orders. Our company, Kissin' Makeup, used *MacWrite* for most of our paperwork but we kept our client list in a fairly simple file manager. I would have to look up every one of the 55 names and addresses, and type them into the computer or Cut and Paste, since my file management program wasn't really set up to do mail merge. My head ached at the thought.

Sound familiar? If your firm's operations are similarly disheveled, maybe your data base needs a makeover. Kissin' Makeup is a fictitious business that will help demonstrate how your data base applications can go from plain to pretty in a flash.

#### APPLYING A GOOD FOUNDATION

Most companies need to collect and store information about customers and orders. They also require attractive form letters and invoices. But there are few products that can do both well. One solution is a combination of two powerful data base programs: *Reflex for the Macintosh* from Borland International for data storage and *FileMaker Plus* from Forethought for graphic output.

#### REFLEX ACTION

This application consists of four related data base files: Customers, Orders, Items, and Inventory. Begin by defining your data base files as shown in Figure 1.

Notice that one or more of the fields in each data base are underlined. Underlined fields are key fields. The data in the file will be sorted using the key fields. To mark a key field, select it then KEY FIELD from the Describe menu.

Once you've identified the keys for each data base, it's time to tell

*Reflex* how the data bases are interrelated. Linking data base files in *Reflex* is as simple as drawing a line between the linked fields. Once you have told *Reflex* that a field is a link to another data base, the name of the field will be in **boldface**. Connect the fields in each data base as shown in Figure 1.

That completes the data base design. Now it's time to enter data. Double click on the name of the Customers data base. *Reflex* will display a data entry screen. You can redesign the screen later by selecting FORM LAYOUT from the Data Base menu, but for now the default layout will do just fine. You enter data as you would in any Macintosh application. Simply type in the data, then

**F**ileMaker Plus has several features that make it especially well suited for printing labels: it can accommodate any label size and graphics can be easily incorporated.

press Tab to move to the next field.

When you reach the Orders field, stop (Figure 2). If you try to enter any data here, *Reflex* will tell you that you can't. That's because these are linked fields — they only display data from the linked Orders data base. You must enter the data about the order directly into the Orders data base itself.

Open the Orders data base, create a new record and begin entering data. When you get to the Items field, stop again. Items must be entered as new records in the Items data base file — one record for each item ordered.

Make sure you enter information

about each of the items you stock in the Inventory data base before you begin to enter Orders in earnest. The Orders and Items data base depend on the Inventory data base for information about the items ordered.

Although it may seem a little ungainly at first to have to enter order data into two different data bases, you'll soon get used to it, and the advantages of keeping the data separate will quickly become apparent. If necessary, it's possible to automate the process of data entry by using a keyboard macro program like *Tempo*.

#### ADDING A LITTLE COLOR

Once you've got your data base set up, and the data entered into it, you'll find you can generate a broad variety of reports. *Reflex* is very capable when it comes to combining data from a number of different data bases into a single report. It's also very good at performing calculations thanks to its large number of spreadsheet-like math functions.

You can use *Reflex* to create an invoice composed of data extracted from the Customer, Orders, Items and Inventory data bases. It can also calculate the invoice total and applicable taxes automatically.

To design the report select the NEW REPORT... command from the File menu. *Reflex* can display two different kinds of reports. The simplest kind is the table-style report — for these *Reflex* will do most of the design work for you, but naturally the table report is a little less flexible than a report you design yourself, so press the Report You Design Yourself button. *Reflex* will open a blank report window. At the top of the window are two text boxes. The box on the left displays the current report field name (*Reflex* starts with default names from f1 to fn, but you can change the names.) The text box on the right is where you'll enter an expression that tells *Reflex* what to put in the report field.

Begin designing the Report template by drawing a box in the report window. Type the text "Account #" and hit Return. You've created a label field. This field is constant from record to record. If you want to make the label more pleasing to the

# NOT JUST ANOTHER PRETTY BASE

eye, you can change its font or style. You can even paste a picture into a label field — handy for putting the company's logo on the invoices. Label fields can be dragged around and resized, as can data fields.

To create a data field, draw another box with your mouse. This time, instead of typing in some text, go to the Describe menu and select TEXT. Now type the expression "AcctNumber of Customer" in the expression box at the top of the report form layout. This tells *Reflex* to place the value in the AcctNumber field from the Customer data base into this data field when it generates the report. Continue to lay out the report form as shown in Figure 3.

This report will be a repeating collection. That is, the design you create will be repeated for each record that matches the selection criterion. To indicate that this is a repeating collection, draw a big box around the Account Number, Order Date, Order Number, and Name and Address of Customer fields, then select REPEATING COLLECTION from

the Describe menu. *Reflex* will draw a gray outline around the items. Now you must tell *Reflex* where to get the data for the repeating collection. Select the gray repeating collection box and type "Orders WHERE DateOrdered = TODAY" in the expression box.

You've told *Reflex* to include only those Orders records whose DateOrdered equals today's date. That's because you only want to print the invoices that were entered today. The expression you've entered is the selection criterion for the repeating collection you've just defined.

You'll need to define a second repeating collection *inside* the first to show the variable number of items that belong to each invoice. This collection will contain three fields from the Inventory data base (itemNumber, description, and unitCost), one field from the Items data base (count), and one calculated field (Total). The Total is derived by multiplying the item's cost times the count.

Finally, there are three calculated

fields in the invoice: SubTotal, Tax and Total. The calculation for the Tax field is a good demonstration of *Reflex's* sophistication. Naturally, only customers from California should be charged the 6% sales tax. The *Reflex* string function STARTS comes in handy here. STARTS(Customer's State, "CA") will return TRUE if the customer is from California, FALSE if not. The IF function returns .06 \* fSubTotal if the customer is from California, 0 if not.

Once you've defined your report form, save it with a ⌘ S. Now it can be called up from disk any time and you only need to type ⌘ = to generate the report (Figure 4). After *Reflex* creates the report you can print it, or export the data for use with another program.

## MIX AND MATCH

That's where *FileMaker Plus* comes in. *FileMaker Plus* is great for sprucing up your invoices and adding that professional look to your reports. Here, you'll be using it to create custom mailing labels for Kissin' Makeup.

Before you can do so, though, you'll have to get the data out of *Reflex* and into *FileMaker Plus*. Neither program can read the other's file format, but both data bases are capable of reading and writing plain text versions of their data.

To export data from *Reflex's* Invoice report you must select the border of the outer repeating collection in the report. Choose the EXPORT DATA... command from the Report menu. *Reflex* gives you four choices: Clipboard, Text File, Mail Merge and Custom Text File. Pick "Text File" for *FileMaker Plus*.

After you press the Text File button, *Reflex* will display all the fields in the selected repeating collection. Select the ones you want to export — in this case the fields that correspond to the Title, FirstName, LastName, Address, City, State and Zip of the Customer data base. That's the data *FileMaker* will need to print custom mailing labels. Once you click OK, *Reflex* will save the data to a text file on disk.

The next step in the file transfer procedure is to create a *FileMaker*

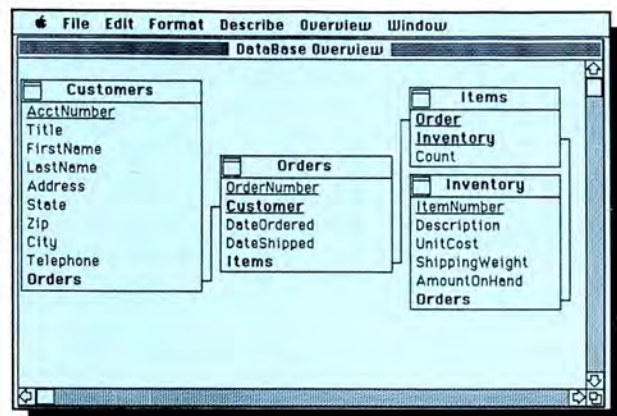


Fig 1: Designing the data base in *Reflex*. *Reflex* is a relational data base. It's specially designed to handle multiple, interconnected data bases. Lines connecting the four data base files show how they are related.

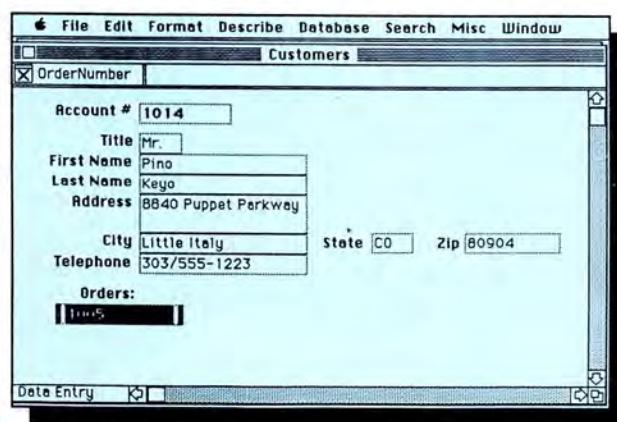


Fig 2: The Customers data entry form in *Reflex*. The order link field is highlighted. If you try to enter data here, *Reflex* will stop you. The order field is for display only — new orders must be entered into the Orders data base.



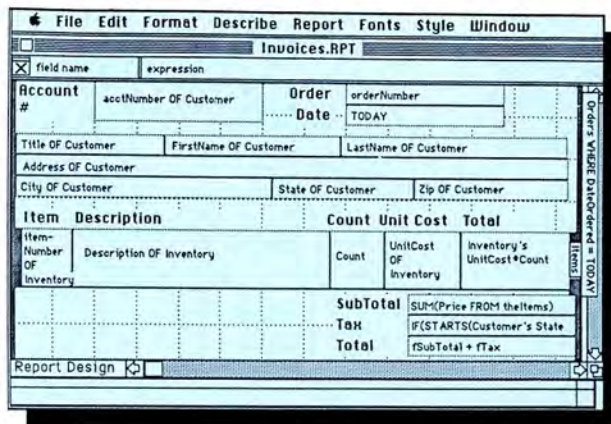


Fig 3: This is the Invoice Report Design template. The expression for each field name has been superimposed over the field so that you can see how each field is derived. Fields may also be given names, which can then be used in expressions. For instance, the SubTotal field's name is fSubTotal. It is used by name in the Tax and Total calculations.

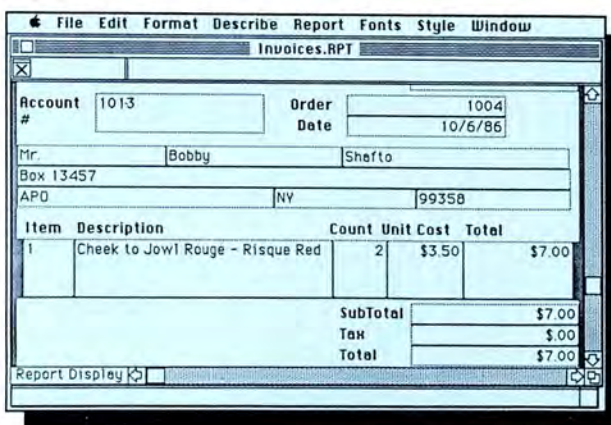


Fig 4: Part of the Invoice Report. Pressing MM= causes Reflex to calculate the report. Data shown here can be printed or exported.

Plus data base to hold the data. When you first run *FileMaker Plus* it will ask you for the name of a file to create. Type in "Mailing Labels." *FileMaker Plus* will then display its Field Definition dialog. Design the data base to match the fields *Reflex* exported: Title, FirstName, LastName, Address, City, State and Zip. Add one more field to this list, call it Logo and tell *FileMaker Plus* it's a picture field. *FileMaker Plus* will store picture data as well as text. Now select Exit. *FileMaker* will display its default data entry form.

Now to import the data you exported from *Reflex*. Select the INPUT FROM... command from the File Menu. *FileMaker Plus* will offer you a choice of fields to import the data into. Press the "Move All" and "Input" buttons. *FileMaker* will read in the *Reflex* file and store the data in the Mailing Labels data base. All that's missing is the logo.

Copy the logo onto the Clipboard from any graphic program like *MacDraw*, *MacPaint*, or *FullPaint*. Once it's on the Clipboard, paste it into

the Logo field of the first record. If it looks scrunched, don't worry. You can resize its field later in Layout mode.

To copy the graphic into the Logo field of all the records, select Replace from the Edit menu. *FileMaker Plus* will ask you if you want to paste the picture into all the records. Choose "Replace." Now you've got a complete mailing label data base ready to go.

The final step is to prepare a mailing label layout for printing. Choose the Layout command from the Select menu. You're in *FileMaker Plus'* layout mode. *FileMaker Plus* allows multiple layouts within a single data base. Select DUPLICATE LAYOUT from the Edit menu to create a new layout form. Rearrange the fields until they look the way you want them. Make sure to position the logo to get the most benefit from it, and don't forget to erase the field labels — you won't need them on a mailing label.

*FileMaker Plus* has several features that make it especially well suited for

printing mailing labels. You've already seen how easy it is to incorporate graphics into a report. Another handy feature is the ability to specify exactly what size your labels are. *FileMaker* can accommodate any label size at all.

Select the SET PAPER SIZE command from the Apple Menu. The Paper Size dialog lets you set your label size permanently. The Gadgets menu has a Label Setup command that lets you specify how many labels across to print. There's also a Slide Objects command that will slide your name and address to the left to eliminate any extra spaces.

Once you've set your labels up to your liking, print away. *FileMaker Plus* supports both the ImageWriter and the LaserWriter.

The next time through you can speed things up with *FileMaker's* script command. Once you've installed a mailing label script it only takes a keystroke to produce customized labels that would make Publisher's Clearing House green with envy.

### THE FINAL TOUCH

This simple application has only scratched the surface of these two powerful programs, but you can no doubt already see that using *Reflex* and *FileMaker Plus* together gives your Mac the brains, beauty and brawn to perform most any business task. ☐

LÉO AND REBECCA LAPORTE ARE WRITERS IN THE SAN FRANCISCO AREA. LÉO RUNS THE MACQUEUE BULLETIN BOARD IN THE BAY AREA.

### REFLEX FOR THE MAC

**Overall Rating:** ■ ■ ■ ■ ■  
**List Price:** \$99.95. Published by Borland International, 4585 Scotts Valley Drive, Scotts Valley, CA 95066. (408) 438-8400. Not copy protected.

### FILEMAKER PLUS

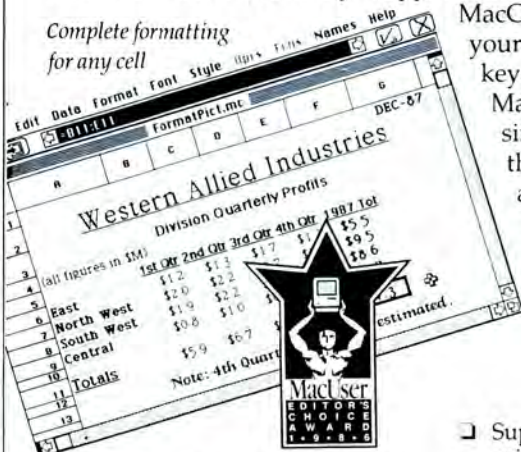
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# HINTS & TIPS

compiled by Michael D. Wesley

Many of you have called or written in response to the article "You Can Take It With You" (*MacUser*, August '86). Some of you needed help getting the connection to work the way it was described, but more of you were in need of a piece of information, Figure 2 to be exact, that was left out of the article by my mistake. I apologize for taking so long to correct the error, but I learned after the article was printed that the Tandy 200 actually has a pin configuration different from that described in its manual. This rendered the missing Figure 2 inoperative, and I have been tracking down a correction so that I could pass it along and get everyone out there up and running.

Since there was so much interest in the subject, we decided to put together a collection of Hints and Tips relating to the Tandy Models 100, 102, and the 200.

## TANDY 100 AND 102



Since the article was written, Tandy has replaced the 100 with a new model, the 102. The 102 has an improved keyboard, a slimmer profile, an improved screen and more standard memory. It weighs about half a pound less. Internally the two machines are identical. If you have a Model 102, simply follow the instructions in the article. The process of transferring files from the Macintosh to a Model 102 is exactly the same as that described for the Model 100.

## FINDING THE RIGHT CABLE



The article suggests that you use an ImageWriter I cable for the connection between the Model 100 and the Mac. At the time, this cable was readily available to most users, but with the introduction

of the Mac Plus, the 512K Enhanced and the ImageWriter II, this is no longer the case. Check with your computer dealer, however, because there are third party companies that continue to manufacture this cable. If you are unable to find the correct cable, you can purchase one from Software for Less, 950 Taraval St., San Francisco, CA 94110, (415) 753-1066.

## MAC PLUS TO TANDY



If you have a Mac Plus, the easiest solution, albeit not the most elegant one, is to get a Mac to ImageWriter I cable and a DB-9 to Mini-8 adapter port on a Mac Plus. These adapters should be readily available at most dealers. The more elegant solution is to find someone who carries or can make a "Mac Plus to ImageWriter I" cable.

## SOFTWARE PROBLEMS



In the article I suggested using *Red Ryder* as the terminal program for the Mac, but I recommended using a setting that is not present in all of the program's versions. What you want to do is find a setting roughly equivalent to "save incoming data as ASCII text." This setting may vary from version to version of *Red Ryder*.



If you are using *MacTerminal*, you will have a problem with carriage returns. The file should transmit from the Tandy to the Mac with no trouble, but it will come in a continuous string of characters with no line feeds at carriage returns. To send carriage returns from the Tandy you must quit TELECOM and enter BASIC from the Main menu. Then type the

following: POKE 63066,1

Press Enter, then exit BASIC and return to TELECOM. From that point, follow the procedure outlined for the file transfer.



With *Smartcom II*, use these settings:

1) Select DIRECT CONNECT from the Connection menu.

2) Select SPEED and FORMAT from the Settings menu. Set the baud rate at 19200, choose seven bits per character with one stop bit, and select None for parity.

3) Select TERMINAL from the Settings menu. Check the options Send Linefeed after Carriage Return and Generate X/On, X/Off flow control.

4) Select FILE TRANSFER PROTOCOL from the Settings menu. Choose XMODEM Data Only.

5) Select the save to disk icon and name the file.

6) Press the STAT command in the Tandy's TELECOM program and enter 9711E. Then select TERM.

7) Select UPLOAD on the Tandy and transfer the file.

## IT STILL WON'T WORK



If you have the cable connected to the printer port on the Mac, try moving the cable to the modem port instead. Make sure you change the setting in your program so that the Mac knows which port is connected.



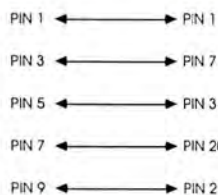
Make sure that your settings are correct, and that settings on both machines are the same. The article suggests transmitting 7 bits with 1 stop bit and ignoring parity. If this does not work, try changing the settings on BOTH machines. Set the Tandy at 88N1E, and *Red Ryder* to 8 bits, with 1 stop bit and No Parity.

## TANDY 200

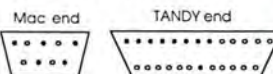


At long last, the information many of you have been waiting for — how to make the Tandy 200 work with the Mac. For some unexplained reason, the Tandy Model 200 requires an extra signal that is not used in the Model 100 or 102. It is because of this extra signal that an ImageWriter I cable, modified or unmodified, will not work with the 200. You must have special cable with the following pin configuration:

Mac End Male DB-9 TANDY 200 End Male DB-25



On the TANDY end (DB-25 end) ONLY JUMP pins 4,5,6 and 8



• = PIN ACTIVE ○ = NO PIN

We wish to offer many thanks to the people at ESM cable in North Carolina for figuring out the correct configuration and sharing it with us. The company now lists the Mac to Tandy 200 cable in its catalog. While ESM does not sell directly to individuals, the cable can be ordered from Software for Less, 950 Taraval St., San Francisco, CA 94116, (415) 753-1066.

Once you have the correct cable, everything else follows as described in the article. The settings and file transfer process are the same as those outlined for the Model 100.

This cable will also connect the Model 200 to a Mac Plus with the addition of a DB-9 to Mini-8 adapter cable. The file transfer process is the same as to a Mac 512.

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**Business Filevision.** Telos Software, 3420 Ocean Park Blvd., Santa Monica, CA 90405, (800) 554-2469. \$395.

**dBaseMac.** Ashton Tate, 20101 Hamilton Ave., Torrance, CA 90502, (213) 538-7000. \$495. (Publisher promises product available by 12/86.)

**dMacIII.** Format Software, 11770 Bernardo Plaza Ct., Suite 208, San Diego, CA 92128, (619) 487-6946. \$495.

**File.** Microsoft, 16011 NE 36th Way, Redmond, WA 98052-6399, (206) 882-8080. \$195.

**FileMaker Plus.** Forethought, Inc., 250 Sorbrante Way, Sunnyvale, CA 94086, (408) 737-7070. \$295.

**Helix.** Odesta, 4084 Commercial Blvd., Northbrook, IL 60062, (312) 498-5615. \$395.

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**Omnis3.** Blyth Software, 2929 Campus Dr., Suite 425, San Mateo, CA 94403, (415) 571-0222. \$495.

**OverVUE.** ProVUE, 222 22nd St., Huntington Beach, CA 92648, (714) 969-2431. \$295.

**Reflex for the Mac.** Borland International, 4585 Scotts Valley Dr., Scotts Valley, CA 95066, (408) 438-8400. \$99.95.

## WORD PROCESSORS

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**Document Modeler.** The Model Office Co., 49 Wellington St. East, Toronto, Ontario, Canada M5E 1C9, (800) 268-8181. \$299.

**EgWord.** Counterpoint Systems, PO Box 1685, Cambridge, MA 02138, (617) 576-6639. \$300.

**HabaWord.** Haba/Arrays, 6711 Valjean Ave., Van Nuys, CA 91406, (818) 994-1899. \$199.

**Just Text.** Knowledge Engineering, GPO Box 2139, New York, NY 10116, (212) 473-0095. \$195.

**MacWrite.** Apple Computer, 20525 Mariani Ave., Cupertino, CA 95014, (408) 996-1010. \$125.

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**MacCalc.** Bravo Technologies, c/oDPAS, PO Box T. Gilroy, CA 95021-2249, (800) 345-2888. \$99.95.

**Multiplan.** Microsoft, 16011 NE 36th Way, Redmond, WA 98052-6399, (206) 882-8080. \$195.

## BUSINESS GRAPHICS

**Chart.** Microsoft, 16011 NE 36th Way, Redmond, WA 98052-6399, (206) 882-8080. \$125.

**Cricket Graph.** Cricket Software, 3508 Market St., Philadelphia, PA 19104, (800) 345-8112. \$195.

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**Jazz.** Lotus Development Corp., 55 Cambridge Parkway, Cambridge, MA 02142, (617) 577-8500. \$395.

**Works.** Microsoft, 16011 NE 36th Way, Redmond, WA 98052-6399, (206) 882-8080. \$295.

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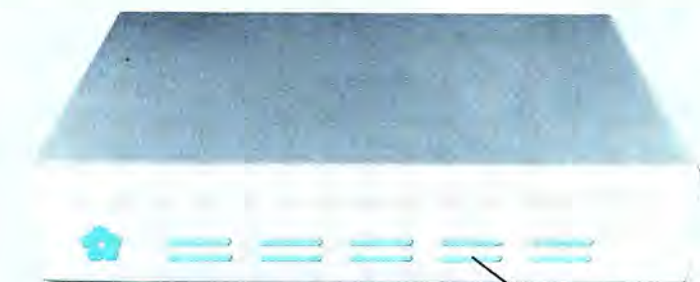
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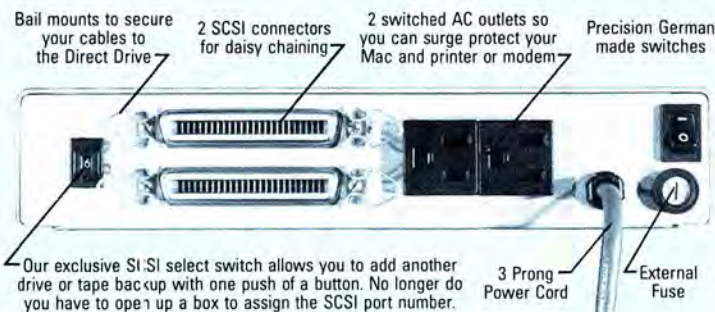


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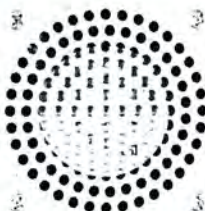
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# SHARING THE DUNGEON

You can get in, but can you get out?

**Dungeons of Doom takes shareware to new  
depths...er, heights.**

IT MAY BE JUST ANOTHER DAY for you, but I'll be spending most of the evening escaping skeleton warriors and being attacked by a flying blob called the Black Pudding.

What's more, instead of the usual mild-mannered me, I'll be the ferocious fighter Son of Kruel Dave, out on a quest for the Orb of Carnos. Without it, I'm going to be stuck forever in a monster-ridden 40-level subterranean dungeon ruthlessly ruled by the Dark Wizard.

You're right, I've flipped. I'm addicted to one of the most popular and perhaps most misunderstood adventure games in Mac history: John Raymonds' shareware classic, *Dungeon of Doom*.

*Dungeon of Doom* (or *D of D*, as it's often called) is not a new game, nor is it a new concept. It has many similarities to the *Ultima*-type fantasy role-playing games where the player assumes a persona — complete with certain predefined characteristics that affect the play — and then goes off on a quest into unexplored and dangerous terrain. The similarity is more than mere coincidence. Raymond was inspired to write the game by two things: an excuse to teach himself C, and his disappointment with the Mac version of *Ultima II*.

Upon starting up the application,

you are greeted with an ominous digitized picture of a claustrophobic passage blocked by an ax-wielding demon. Backed into a corner is a stalwart little fellow with short sword and shield, ready to defend himself. That fellow is you, and the picture nicely epitomizes the essence of play: kill or be killed.

After a mouse click, the start-up screen goes away and you can select **NEW GAME** from the File menu. You know that danger's afoot; your cursor has changed to a sword.

## PICKING YOUR PERSONALITY

Before play begins, you must select your "class", that is, the particular type of character you want to be. Selecting different classes (knight, fighter, sage, etc.) changes the character's attributes or traits (strength, intelligence, wisdom, etc.). Almost every class has its own strong point. For example, wizards have wisdom of 20 and strength of 11, but a fighter has a strength of 18 and wisdom of only 8. Similarly, the jeweler's forte is dexterity; the knight's is constitution; and for the sage, it's intelligence. For Jones, however, there's no special category of greatness. Deciding to enter the dungeon as a plain Jones means you will be going in with fair-to-middlin' characteristics, in the 14 and 15

range (top is 25). For the first-time out explorer with no idea of which traits are most needed at the onset, Jones is probably the safest bet. All the traits can be augmented (and a few can go down) in the course of the play.

After typing in an appropriately adventuresome name, you're in the dungeon. Click around the character icon to move a few squares. You should be right next to the stairs. Can you escape up the stairs perhaps? No, a polite and slightly ominous message reads, "A force prevents you from escaping to the surface. Maybe the Orb will set you free." So you have to find that Orb before you can get out. It's time to start taking stock of your surroundings and your possessions.

## TAKING INVENTORY

First thing to do is to check out what items you have on you. The best way to do that is choose **DROP** from the Inventory menu. Better yet, just type D. (Shortcut commands in *D of D* do not have to be typed with the Command key.) Depending on what class of character you are, you'll find various assortments of food, weapons, armor, potions, scrolls, wands, and rings. Take note of interesting inventory items and then cancel this window. Using the commands in the Use menu or their shortcut equivalents, put on the armor and pick up the weapon you found in your inventory. Now you're ready.

Even though there are keyboard commands for moving your character around, I find the mouse works better and faster: Just keep the button depressed in the direction you want to move. You can control the game speed by typing a number on the keyboard from 1 (very fast) to 0 (very slow). And don't ever leave the game unattended. Even in the absence of keyboard input, the game inexorably progresses. Stepping out for a cheese sandwich without using the Pause command means you might come back to find your hero either surrounded by monsters or already quite dead. (On the other hand, leaving the game "paused" for a couple of minutes rewards you

BY DAVE VALIULIS

with an unexpected surprise. Try it.)

The graphic resolution in *D of D* is really good. Because the game is a Mac original and wasn't translated from some other low-res computer, the images are sharp and artistic. But to players spoiled by state-of-the-art digitized graphics, realistic sound, and lots of animation, *D of D* might look pretty static and stodgy. There is some animation, like when you zap a wand or throw something, and there are sound effects for movement and fighting, but nothing to match the animation of *Uninvited* or the sound of *Enchanted Scepters*. On the other hand, the look and sound are still far above such bestsellers as *Ultima* or *Xyphus*.

#### THINGS ARE PICKING UP

The floor of the dungeon is littered with items, useful and otherwise. To pick up something you need only pass over it. In this way, you can pick up scrolls, rings, food, weapons, armor, loot, and things to throw (including a Mac Plus). When you pick them up, your message window announces what it is. But neophytes in the dungeon won't know the true identities or uses of some objects. For example, a potion might simply be called a Swirly Potion or a Yellow Potion; a ring might be a Jade Ring. Some characters are better at guessing the identities of certain objects than other classes, but the only way to be certain is to use them (drink a potion, read a scroll, or wear a ring).

A large part of the game is getting to know what the cryptic objects are and what they do. Needless to say, not all the things you find will be good for you. Beware of the Poison potion and the Amnesia scroll, for example. And I'm not especially keen on the Hunger ring, either.

Even weapons and armor can be bad for you. Usually there is a use value associated with both weapons and armor (from -4 to +4, I think). Chain armor +3 is pretty good, but Gloves -2 might actually attract blows rather than protect you from them. A use value for scrolls and wands indicates how often they can be used before they crumble.

Part of the fun and also the frus-

**N**ear the surface  
monsters are  
pretty easy to  
kill, and near the bot-  
tom they're bloody ter-  
rible (or vice-versa).

tration with *D of D* is that it comes with a minimum of information and instructions. There are hints in the Help menu, but they're obscure enough to be of little or no use to the beginner. The result is that the new player has a bewildering number of unknowns before him with little to fall back on. You just have to keep trying everything out and seeing what works and what doesn't. Unfortunately, this has led a lot of *D of D* questers to give it up.

This lack of guidance is deliberate.



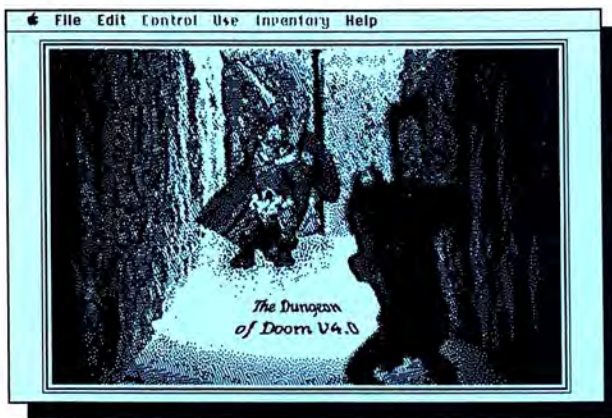
# SHARING THE DUNGEON

Raymonds considered it part of the quest to figure out, for example, what a Digging Wand did and what a Life Potion was. I have to admit, however, that I was put off by this at first. It just seemed too much to expect from the onset. Whether you will find this too maddening depends on your disposition, your experience with other adventure games, and your method of play.

One of the best things about *D of D* is that every game is different. The program is written so that each dun-

**S**tepping out for a sandwich without using the Pause command means you might come back to find your hero already dead.

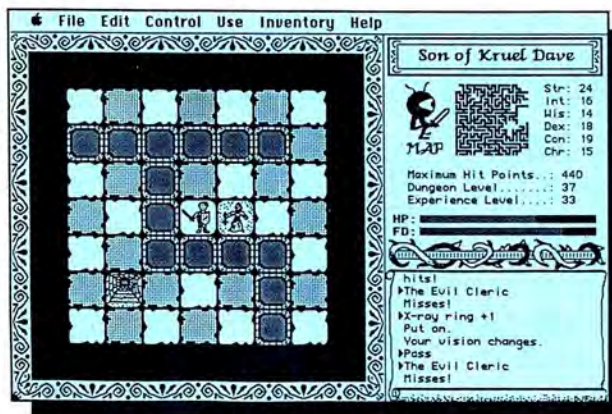
geon-level maze is created randomly; so no two are ever alike. Likewise, the object names (Kalebunga Scroll, Hot Pink Potion, etc.) are assigned randomly at the start of each new game. This means that you can always start an entirely new game. Players who spent \$60 on a game like *Deja Vu*, loved it, won it, and now feel cheated that you can't go back and play again, will appreciate this aspect. I have played *D of D* dozens of times (I've won about five), and it's always challenging.



The first thing you see in *Dungeon of Doom* is this sturdy little fellow cornered by an ax-wielding maniac. It's prophetic.



As you can see, the Use menu gives you plenty of things to do during play — not that it always helps. Note the crowd on the board. Avoid the animate objects, whenever possible; pick up the inanimate ones. Simple, right?



What seem to be maze maps, or just tracings of your own circuitous progress appear to the right of the midget cyclops in the upper right-hand corner. Who knows? They might even help.

## MEET THE MONSTERS

Killing monsters is what it's all about in working your way down all 40 dungeon levels — and back up all 40, too. One thing that sets *D of D* apart from the pack, in my opinion, is the quality of its monsters. There's a stunning selection of 42 different creatures, all of them hostile. Near the surface, they're pretty easy to kill (but then, so are you at that point), and near the bottom, they're bloody terrible (or vice-versa). I am proud to say that I've seen all 42 monsters at this point, but one of them (the Drackone) I've seen only once. Incidentally, the only way to see what they look like, besides sneaking a glimpse of the few shown in the accompanying screen dumps, is to play the game. Unlike most Mac games, the creatures are not contained in ICON resources, so mucking around with *ResEdit* will do no good. The sidebar, however, gives you an alphabetical list so you can make sure you haven't missed any.

Again, there's a challenge in figuring how each monster fights and how to kill them most efficiently. A few are pretty obvious. The Fire Lizard is hit especially hard by the Ice Wand, for example. But how do you fight back when "you feel drained" by the Vampire? Several monsters not only hit with their bare hands (hooves, paws or whatever), but also pack a wallop with blasts of fire, ice or electricity. Shields seem good protection against those, though they also waste a hand that could be wielding a weapon.

As you travel deeper down the cobwebbed stairs, keep a sharp eye on the hit-point bar and your food

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# SHARING THE DUNGEON

indicator. The first tells you how many hits you can take before you're killed. The second shows how much energy you have left. There's a sophisticated interaction among these two measurements and your attributes. The more monsters you kill, the more hits it takes to kill you (this is what is meant by the maximum hit points). The stronger you are, the harder you hit and the more things you can carry. The higher your constitution, the slower your food energy is used up. You hit hardest when

**B**eware of the Poison potion and the Amnesia scroll. And I'm not especially keen on the Hunger ring, either.

you're not too full or too hungry. And so on.

With few instructions and hordes of horrible monsters intent on killing you, you will probably find yourself repeatedly starting over or picking up from where you last got killed. But that's part of the game, as they say. And if you don't like it, don't pay for it.

Say what?

## IT'S SHAREWARE!

That's right, don't pay for it. We're talking shareware here, folks. *D of D* is not sold in stores; it does not come in a box with a poorly drawn poster; you will find no ad for it in this magazine. John Raymonds (and two friends) created this game on summer break at MIT. He then uploaded it to bulletin boards and information services like CompuServe. Thousands of people have downloaded the program with an untold number getting it directly from friends and user groups. If they liked it, they paid Raymonds \$25; if not, they didn't.

That's the theory, at any rate. There's no way of ever knowing how many unscrupulous people are using and enjoying the game without paying, but Raymonds reports that he has no evidence to refute the current sad consensus that less than 1 percent actually send in their money.

## THIS BUG'S FOR YOU

Because there is no way to control the flow of public domain or shareware products, it is important for the "buyer" to make sure he has the current version. The latest version is 4.0 and is HFS compatible. This version has a couple of bugs, however, when used with the old ROMs. Would you believe that I get a system crash every time I pull down the Help or the Apple menu in the middle of a game! For a first-time user, this could be an intolerable pain. If you do use version 4 on an unenhanced 512 Mac, I suggest you read all the help screens *before* choosing your game from the File menu. Version 3 is, therefore, recommended if you have an older 512 machine.

(continued on page 178)

There are 42 monsters in *D of D*. It takes a lot of playing to find them all. Here's a checklist of all of them, along with some notes.

MONSTER	NOTES
1. Air Devil	Files and flocks
2. Alligog	
3. Amadon	Can make you confused
4. Balitor	
5. Banshee	
6. Black Pudding	A Monty Python reference?
7. Black Unicorn	One of the rarest
8. Caveman	
9. Centaur	
10. Crimean Warrior	
11. Dark Wizard	You name it, he can do it — including climbing stairs
12. Drackone	The rarest (I think)
13. Dragon	Spits fire
14. Drow	Often leaves behind an Elven Cloak
15. Electric Penguin	My favorite, rare, hits with 20,000 volts
16. Ettin	Two-headed
17. Evil Cleric	Shoots fire
18. Evil Necromancer	
19. Firbole	
20. Fire Lizard	Shoots fire, abundant
21. Floor	Just another pretty tile
22. Fomor	
23. Freezing Sphere	Rare
24. Giant Bat	
25. Giant Scorpion	Can poison you
26. Giant Spider	
27. Ice Whirlwind	Hits with freezing blast
28. Lion	Often sleeps
29. Lizzog	A lizard + frog
30. Morrigan	Named after monster-icon designer John Morgan Jr.
31. Ogrillon	Ogre + gorilla
32. Reaper	Grim
33. Schwein Hun	
34. Sethron	The easiest kill
35. Shambling Mound	
36. Skeleton Warrior	
37. Succubus	
38. Vampire	Can drain you dry
39. Wandering Eye	
40. Witch	Often leaves behind a potion
41. Zambit	Cute, a zapping rabbit
42. Zarmindor	Often leaves behind a weapon

# W·O·R·D HANDLER

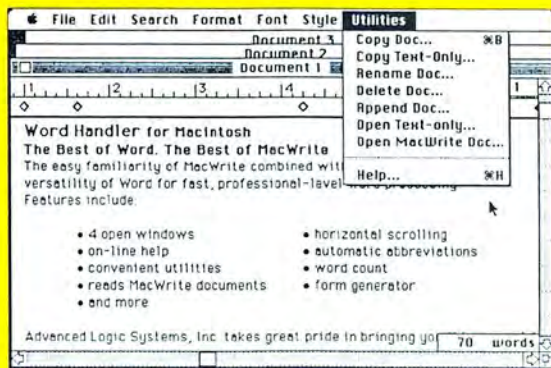
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- Store frequently used words and phrases with Word Handler's Abbreviation facility to avoid repetitive typing.
- Open fully-formatted MacWrite documents.
- Advanced scrolling options.
- Help is always available at a touch of the mouse.

### Special Trade-In Offer for MacWrite Owners:

For a limited time\*, you can get Word Handler direct from ALS for the astoundingly low price of \$29.95!

Just put your original MacWrite master disk in an envelope along with the coupon from this ad and your check for \$29.95 and send it to Advanced Logic Systems, Attention: ALS Word Handler Offer.

**You be the judge.** If you don't agree that Word Handler is better than MacWrite, just send us a note within 30 days of purchase and we will send you a replacement MacWrite disk for a postage and handling fee of \$25.

\*Offer may be withdrawn at any time.

**YES!** Please send me Word Handler for the Macintosh.

I want Word Handler but do not want to trade-in my MacWrite disk. Enclosed is \$79.95.

Enclosed is my original MacWrite disk and \$29.95.

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# TIP SHEET

compiled by David Biedny

Found a trick, shortcut or smarter way to get something done with a program? Share your hints with the Rest of Us by mailing them in to Tip Sheet, 25 West 39th Street, New York, NY 10018. We'll pay \$25 for every hint we use, plus we'll print your name and hometown in the magazine. So what are you waiting for? Here's your chance to be rich and famous. Well, at least famous!

## FILEMAKER PLUS



If you need to enter many copies of a record using the (new) COMMAND-M keystroke, it is helpful to execute a find on the first record entered. Thereafter, the number under **found:** will increase by one on each press of COMMAND-M and you can keep track of how many records have been entered.

JACK RABIN  
MILLVILLE, NJ

## HARDWARE



Change the color of your screen from light blue to soft green with a sheet of yellow acetate. These are sold as see-through report covers in most office supply stores. Cut it to fit and tape it over the screen. Or make it removable by attaching a short piece of string to the top corners and sliding it into the top of your Mac.

BOB MCILVRADE  
FAIRFIELD, IA

## EXCEL, WORD



Open a new document before opening one you wish to keep private. Using its size box, make the new document as small as possible and move it to the bottom of the page,

with only its title bar showing. Now open your private document. If intruded, double click the new document's title bar and it instantly covers your private one.

ED JOHNSON  
KENTWOOD, MI

## FULLPAINT



Unlike other programs, *FullPaint's* Undo function remembers past the last mouse drawing action. As long as the editing functions (Cut, Copy and Paste) aren't used, or a selection isn't made in the tool palette, the last object created with any of the draw-

ing tools can be Undone, even if menus are opened, the preferences dialog is accessed and changed, patterns and brushes are edited, and so on.

MICHAEL JOHN AUTH  
RIVERSIDE, CA

## SWITCHER



If you want to incorporate the power of *Switcher* into scientific writing, i.e., the preparation of drawn figures for a text, you should introduce a language such as BASIC or FORTRAN as one application in *Switcher* and *Cricket Graph* as the other application. The output of the com-

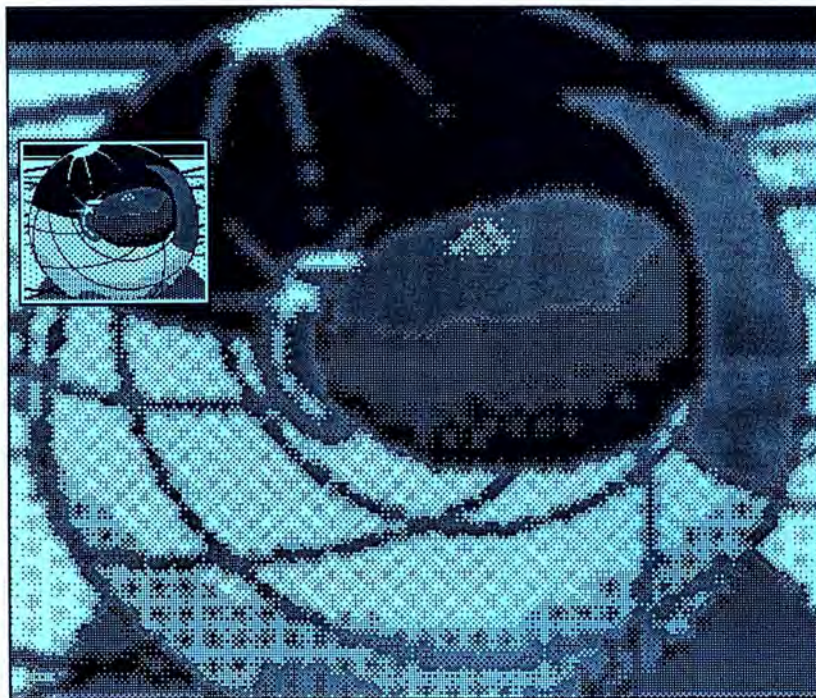
puter program can be stored in the Clipboard and then switched over to *Cricket Graph* for fast graphical display of data. The resulting graph can then be modified in *MacPaint*, and then pasted into a *MacWrite* document.  
KARL E. LONNGREN  
IOWA CITY, IA

## HFS



When formatting a 400K disk to have HFS, make sure that the Caps Lock key isn't depressed. The disk does not format as HFS if it is.

GERALD LEVY  
MALIBU, CA



## GRAYPAINT



One of *GrayPaint's* limitations is that it can't work on an entire page at a time. To work around this limitation, and achieve an interesting effect at

the same time, copy a selection of the active *GrayPaint* window, and save it as a *MacPaint* document. The copied selection will expand to fill the *MacPaint* page, and *Gray-*

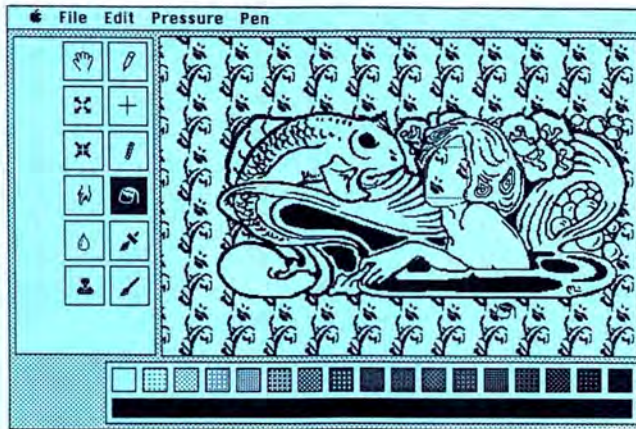
*Paint's* gray scale information will be transferred with the image, resulting in a beautiful smoothing effect.

PETER SCHUG  
BRONX, NY





A powerful feature of *GrayPaint*, which is not fully explained in its manual, allows any area to be turned into a fill pattern. To do this, select the desired area with the selection marquee, select DEFINE FILL PATTERN from the Edit menu, and holding down the Shift key, fill an area with the paint bucket. RALPH BAILEY  
LOS ANGELES, CA



### MAC3D 2.0

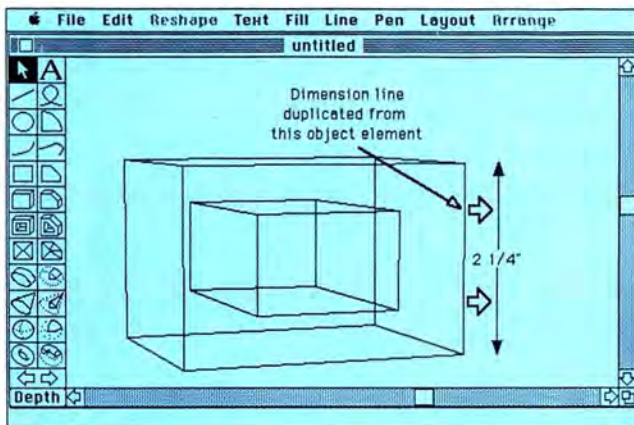
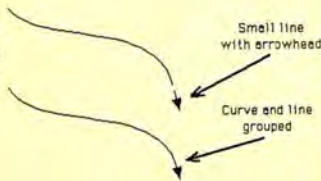


Challenger Software, the publishers of *Mac3D*, send a

newsletter to registered owners, describing program updates and tips to using the program to its fullest. With

their permission, we've reprinted some of those tips. They all apply to version 2.0 of the program.

• To create endmarks on the arcs and curves, attach a small line to the end of the arc/curve, and place the endmark on that line.



• To dimension an edge on a rotated object, unglue the object down to its edges, duplicate the edge to be dimen-

sioned, then move the duplicate away from the object and choose DIMENSION.

• Although *Mac3D 2.0* has a Save as PICT capability, a graphic saved as such actually comes through as a bit-mapped image when opened from *MacDraw*, *PageMaker*, etc. In order to get a QuickDraw object out of the program, copy the graphic to the Clipboard: It will retain its object characteristics.

• The easiest way to add small detail to a drawing is to increase the scale of the document. This will have the effect of enlarging the objects in the document, enabling you to draw small details.

• To split a vertex into two vertices (resulting in a new edge), enter the Bevel window, select the vertex, and bevel by 1 percent.

### MULTIPLAN



If you compile lists on *Multiplan* or a similar program and you want the title at the top of the list after sorting, just type a space before the title. This works for ascending order. The space has a lower ASCII code than any other single character. ALAN FIBISH  
SAN FRANCISCO, CA

### MACWRITE



Want to add a space and a half between paragraphs or lines without using a ruler? Hit CONTROL-L (subscript) at the beginning of the new paragraph and type. At the end of this line or the beginning of the next (you may have to backspace), hit CONTROL-L to return the spacing to normal. MARK J. LUCAS  
NORTH HALEDON, NJ

### MACDRAW



When working with very small objects, it sometimes gets difficult to grab the object's resizing handles. Often, an attempt to resize an object ends up with the object being moved from its original position. A solution to the problem is to create a second, larger object, Shift-click on both objects, group them, and use the resizing handles on the larger element to stretch/shrink/resize both. Once the desired effect is achieved, simply ungroup them and delete the larger element. PATRICK KURAS  
BRIGHTON, MA

### MINIWRITER DESK ACCESSORY



When using this DA, the cursor keys work within as expected. To actively scroll the screen up and down, press the Command key in conjunction with the cursor keys. JERRY BEZDEKIAN

FOREST HILLS, QUEENS

### RED RYDER



To disable the opening screen in *Red Ryder*, create a dummy file (for example, a text file with a single character in it, or nothing at all) with the name "RRJS", and place it on the same disk (MFS) or in the same folder (HFS) where the program is located. DAVID SCHARGEL  
MASSAPEQUA, NY

### DESK ACCESSORIES



If you need the time and/or date on your document, just call up the Alarm Clock from the Apple menu and select COPY from the Edit menu. The current time and date will be placed on the Clipboard, and you can paste them into your document. IAN MCLELLAN  
WATERLOO, ON

Don't just sit there waiting for us to get around to your problem or question. Copies of the deluxe, spiral bound edition of *The Power User's Manual: Over 1,000 Hints and Tips for the Macintosh* are now available for a mere \$19.95, which includes shipping and handling. The manual has two cross-referenced indexes to help find tips fast and covers over 100 of the most popular Mac programs and peripherals. It's worth its weight in gold mice, and just happens to be published by *MacUser*. Make your check payable to *MacUser Publications, Inc.* and send the order to: Powers Users Manual Offer, *MacUser Magazine*, 25 West 39th St., New York, NY 10018. Bulk rates for clubs, organizations and schools are available from the same address. The manual is currently available only from *MacUser*.

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by Dan Cochran

# ANSWERS FROM THE MAC TEAM

Got a Mac problem? Something that you'd like explained? Something you can't find the answer for anywhere else? Apple's Dan Cochran will answer your questions every month in this space. When the questions are too tough for him, he'll get the answers from other members of the Mac team. So ask what you need to know and get your answers straight from the source!

Send your questions to Dan care of MacUser, 25 West 39th Street, New York, NY 10018. Dan will read all of your questions, but, unfortunately, he may not be able to answer individual queries.

## Startup Haunting

**Q** Here's a puzzlement. I have a 512 Macintosh with a HyperDrive 20. Recently, using *Copy II Mac*, I tried to install that wild and crazy guy, *Racter*, on the hard disk. It didn't work, which didn't surprise me. What did surprise me, however, is that now the *Racter* title art (that weird mask you may have seen) now appears in place of the HyperDrive announcement that used to appear every time the Mac is booted.

There is no trace of a "Racter" file anywhere, but the picture won't go away. Is it possible that *Racter* has supernatural powers? How do I get him to stop haunting my Mac? I don't really care to see the HyperDrive logo each time I boot. In fact, I wish I knew how to install my own personal logo, such as HENRYDRIVE.

HENRY SLESAR  
NEW YORK, NY

**A.** Sounds like a job for Bill Murray and Dan Ackroyd. Here's what happened:

(1) When you boot the Macintosh, the System looks for a file called Startup Screen in the System folder. If there is such a file it will briefly display the image contained in that file before you enter the Finder.

(2) The HyperDrive System software provides such a file. However, like any file, it can be made invisible so that you can't actually see it in any folder or on the desktop.

(3) Copy II Mac did part of its job. While it didn't successfully manage to install all of the *Racter* files on your hard disk, it did manage to not only install but replace the HyperDrive Startup Screen file with the corresponding Startup Screen file from the *Racter* disk. It also rendered it invisible so you won't see it physically represented on your Desktop or in your System folder.

(4) Now when you boot the Macintosh you'll get the *Racter* start-up art. The HyperDrive Startup Screen is probably lost forever, although you can still find it on your HyperDrive System software disks.

(5) You can create your own customized start-up screens. Using Bill Atkinson's public domain program ScreenMaker, you can have your Macintosh display any MacPaint image as the start-up screen. Boot up ScreenMaker, select DOC TO SCREEN from the ScreenMaker menus, select the MacPaint image you wish to use, and save it as Startup Screen into the System folder. This will replace old *Racter*. If you don't want any start-up screens you'll have to use a utility like ResEdit or Fedit to make the *Racter* Startup Screen file visible. Then you can just toss it in the trash and you won't be bothered with any unwelcome start-up guests.

## Missing Table

**Q.** In the September issue of MacUser, you explained how to override the unidirectional print mode of the ImageWriter, giving a table prepared by Apple's Technical Communications Group. You neglected to print the table. Would you please print it?

CLIFFORD PAUL JONES  
MOUNTAIN VIEW, CA

**A.** Yeah...that famous editorial slip-up. Here's the table:

## BIDIRECTIONAL PRINTING ON AN IMAGEWRITER

ImageWriter (original) — all Driver Versions, cannot be overridden:

High	Bidirectional	Always
Standard	Unidirectional	Always
Draft	Bidirectional	Always

ImageWriter II — with Driver Version 2.0, cannot be overridden:

High	Bidirectional	Always
Standard	Bidirectional	Always
Draft	Bidirectional	Always

ImageWriter II — with Driver Version 2.1 or 2.2:

High	Bidirectional	Always
Standard	Unidirectional	Default
	Set bidirectional	

## ImageWriter Motion

**Q.** In virtually every regard, Apple's ImageWriter II is a remarkable and most enjoyable printing machine. I delight in its ability to print type or graphics, color or black-and-white. When compared to my daisywheel printer, it does, however, exhibit one habit that is most annoying. With the daisywheel printer, what you see is what you get. Load paper to a line and that is the line at which the printer starts printing. Straightforward and logical.

Not so with the ImageWriter II — load paper to a line and start praying. Before it starts printing, it is apt to jump back four lines, jump ahead six or make some other unpredictable movement. I have never been able to figure out in which direction, or how far, it is going to move before it prints.

Is there any logic to it? How can I find the point on a sheet of paper at which the ImageWriter II will begin a page?

STEVEN E. MACINTYRE  
NEW YORK, NY

**A.** The bizarre motion you ascribe to the ImageWriter does indeed have some logic behind it. Essentially the paper movement is a software trick to make the ImageWriter II act like an ImageWriter I. Here's how Bill Dawson, at Apple customer relations, explains it:

The reverse paper motion is seen only on the ImageWriter II, with tractor feed paper. For both models of the ImageWriter, the correct position for starting tractor feed paper is with the top edge (or perforation) under the pinch rollers on the paper bail. On the ImageWriter I, this puts the print-head about half-inch from the top edge, but on the ImageWriter II it puts the print-head about one inch from the top.

The ImageWriter software has to make the ImageWriter II seem identical to the old model, so at the beginning of each printing job it has to roll the paper backward about a half-inch to put the printhead where it would be on an ImageWriter I. At the end of the job, the paper is advanced so that the top edge is once again under the rollers.

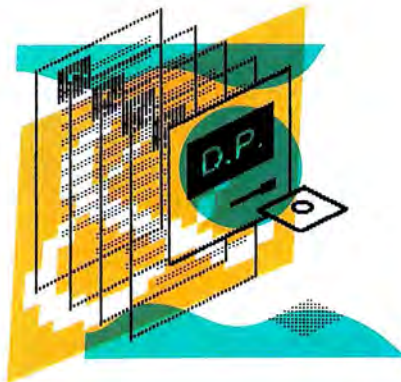
Some applications, notably MacWrite and Word, make every page a separate printing job. What that means is that between pages you see the paper advance until the edge is under the rollers, then roll back until the printhead is half an inch from the top to start the next page.

**A Reader Replies**

**Q.** In the October issue of *MacUser*, a reader asked you about printing in 10-pitch type on the ImageWriter II. Your answer suggested that he would need to use a programming language such as BASIC or Pascal to embed printer control characters into the document being printed. However, there is a much simpler way of obtaining 10-pitch type from the ImageWriter II. In draft mode, the IW II selects one of its internal fonts based on the font size of the characters in the document. For

example if the font size is 12 point, the IW II will use its 12 character per inch (12 pitch) font. If the font size is 14 point, the IW II prints in 10-pitch mode.

Using either *MacWrite* or *Word*, your reader could change the font size of his text to 14 point. To obtain proper



spacing between words, he should also change to one of the monospaced fonts. Although both the Monoco and Dover fonts are monospaced, Courier is the easiest to read on the screen because it has a 14-point version that can be in-

stalled in the *System*. And if the user selects the best quality from the switches on the front of the IW II, the quality is excellent.

Also your reader should be reminded that the single spacing of a standard typewriter can be obtained in *Word* by using the Paragraph Format command and changing "Auto" to "1 li" in the line spacing box. In *MacWrite* 4.5, the reader would just need to check the 6 lines/inch box in the ruler.

J. BERMAN  
MEMPHIS, TN

**A.** Thanks for the lucid explanation. The saga of ImageWriter II draft printing continues....

**AppleTalk ImageWriter**

**Q.** I work in a small office, with two Macintosh Plus computers and an ImageWriter II with an AppleTalk card. However, when both Macs are trying to print to the ImageWriter at the same time over AppleTalk, the ImageWriter will alternately print a page from the first user's document, then a page from the second user's document, and continue in this manner until both printing jobs are

ANDY MARTIN

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complete. Is this a problem with AppleTalk or with my hardware?

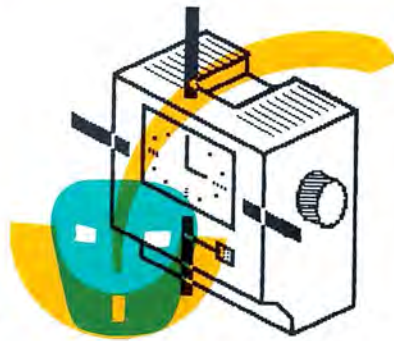
PATRICK STANDIFER  
SAN JOSE, CA

**A.** Many applications, including MacWrite and Word, treat a complete printing job (for example, a ten-page document) as ten separate printing jobs of one page each. Since each page is sent individually to the printer, when two users are printing over AppleTalk simultaneously, they vie for attention of the printer. Nothing is wrong with AppleTalk or your hardware; it's the application that causes this phenomenon.

By the way, if you print in "Draft" mode, most applications handle a multipage document as an individual print job and the second user's job won't start until the first is complete.

**RAM Cache**

**Q.** Occasionally I've had trouble running Excel. If I boot an 800K HFS floppy, the Disk Info DA tells me I have 640K out of 1024K memory available. If I launch the Excel program, I have only 22K left, which reduces to a single digit, 1K, if I call up a spreadsheet. The



spreadsheet saves very slowly. Setting the Mac's RAM cache to zero doesn't seem to change this.

Where has all the 1024K RAM gone? How can one use Excel with Switcher in a 1024K machine if it eats all that RAM?  
SAMUEL ZELMAN  
TOPEKA, KS


**A.** If the RAM cache is activated via the control panel, and you deactivate it while running an application, you won't get that memory back until you actually return to the Finder and restart or reboot the Mac. And if you reboot from a disk whose System

file has the RAM cache set, you're right back to where you started from. Just remember that you can't retrieve RAM cache memory without: turning RAM cache off via the control panel, and quitting the application or rebooting the machine.

Microsoft recommends allocating 304K of memory when running Excel under Switcher. This will leave you plenty of room to run one or two additional applications under Switcher.

**System 38 Connectivity**

**Q.** Our MIS department has an IBM System 38. Several of us also have Macintosh computers which we use today primarily for desktop publishing. We'd like to be able to tie them into the System 38. Our Apple dealer doesn't have a solution. Any suggestions?  
VANCE LEE  
OAKLAND, CA

**A.** Apple's MIS department also has an IBM System 38 (that's hard to admit). To allow our Macs to talk to the System 38 we're using a protocol converter from KMW Systems Corporation. You can reach KMW at 8307 Highway 71 West in Austin, Texas, 78735. 

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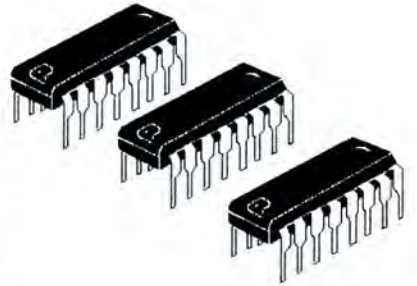
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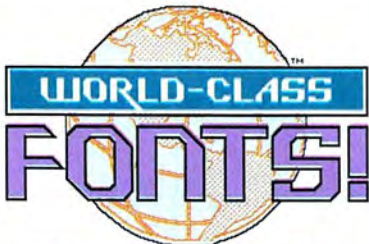


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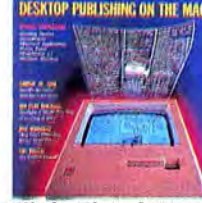
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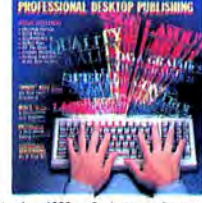
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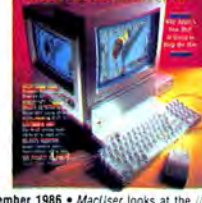
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# MINIFINDERS



Have you often wished for a personal assistant to help in picking software? These MiniFinders may not breathe and move, but they do tell you what products are hot and, better, what these products do. Each of these items has been carefully reviewed and selected by the MacUser editorial staff. Each has been rated from 1 to 5 mice. Ratings are relative within categories, and they can change as categories expand and new products advance the state of the art. You won't see many low ratings or bombs, since we're telling you about the cream of the crop, but we will warn you about the really bad products so that you don't spend your money on them. **Red names indicate this month's additions.** The letters at the end of the entries indicate whether a product is copy protected (CP) or not (NCP). CP? indicates that we don't know. If a product has been reviewed or QuickClicked in MacUser, the date of the review is shown. Next time you have to find products you can count on, count on MacUser!

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## INTEGRATED SOFTWARE

**Crunch** is an icon-driven relational spreadsheet that features **|||||** versatile charting and database capabilities. Strong financial logic, date and mathematical functions. Spreadsheets can be linked. The manual is clear and concisely written. Macros are not supported. \$195. Paladin, 2895 Zanker Rd., San Jose, CA 95134. CP (Jan 86)

**Ensemble** lets users create a database of words, pictures, and/or **|||** numbers; graph data; generate custom forms and link files for applications such as mail merge. Can perform calculations and math functions on data. Capacity limited by RAM and disk size. \$299.95. Hayden, 600 Suffolk St., Lowell, MA 01854. CP

**Excel** is THE power spreadsheet. Of the Mac, of the world. Has **|||||** 256-column by 16,384-row capability. Features include a powerful macro function (with a recorder to make creation simple) and elaborate charting facilities. 512K+ Mac and external drive required. \$395. Microsoft, 16011 NE 36th Way, Redmond, WA 98052-6399. CP (Prem)

**Jazz** provides well integrated modules for word processing, graphs, **|||||** worksheets, databases and communications. HotView, is best feature. Requires 512K+ and external drive. Version 1A requires 800K drive. \$595. Lotus, 55 Cambridge Parkway, Cambridge, MA 02142. CP (Prem)

**Microsoft Works** is an integrated application that includes word **|||||** processing, database, spreadsheet and telecommunications functions. The telecommunications module includes background uploading and downloading. \$295. Microsoft, 16011 NE 36th Way, Redmond, WA 98052. NCP (Oct 86)

**Quartet** is an integrated program that works on a 128K Mac, built **|||||** around a powerful spreadsheet with a full range of functions. It can also be used as a database and provides good quality charts from spreadsheet data. Documentation is adequate, but not too well organized. \$199. Haba Systems, 6711 Valgaen Ave., Van Nuys, CA 91406. CP

## BUSINESS ACCOUNTING

**BPI General Accounting** is an easy to use system. Six journals, **|||||** AR, AP, Payroll and GL on one disk. Offset amounts automatically post to ledgers. Up to 8000 accounts. Detailed records, wide range of reports. *Switcher* and HFS compatible. \$425. Requires 512K+. BPI Systems, 3001 Bee Cave Rd., Austin, TX 78746. NCP (Aug 86)

**CheckMark** is a Ledger with five preset journals: Cash Disburse- **|||||** ments, Receipts, General, Sales, and Purchases. Menus and data entry are very straightforward. Flexible summary reports are built in, but customer and vendor information is very minimal. \$295. CheckMark Software, PO Box 860, Fort Collins, CO 80522. CP

**Gallery Finance** is a one-write system with General Ledger, Cash **|||||** Disbursements, Payables and Receivables in a single package. Data entered in a journal is automatically posted to appropriate records. Excellent manual includes tutorial on basic accounting principles. Requires 512K+, printer and external drive. \$795. Micromax Systems, 6868 Nancy Ridge Dr., San Diego, CA 92121. CP (Dec 85)

**Hardisk** is a complex integrated hard disk system that does not **|||||** use Mac interface. Manual is detailed but complicated, with a few pages that make it Mac-specific. Requires hard disk and printer. \$695 per module. Great Plains, Box 9739, Fargo, ND 58109. NCP (Dec 85)

**Insight** is a high-powered accounting program for the small to **|||||** medium size business. At present, two modules are available: Accounts Receivable and General Ledger; others are in the works. Requires 512K and hard disk. \$595. Layered, 85 Merrimac St., Boston, MA 02114. NCP (Dec 86)

**Rags to Riches** integrated accounting modules (General Ledger **|||||** and Accounts Receivable) uses Mac interface to the hilt. Information entered in one window automatically transfers. No detailed or flexible reporting. Very easy to use, but it can be confusing with several windows on screen. Requires 512K+ and printer. \$199.95 per module. Chang Labs, 5300 Stevens Creek Blvd., San Jose, CA 95129. CP (Dec 85)

**Strictly Business** General Ledger features clear, well-outlined **|||||** set-up procedures and operations. Very flexible, up to 99 profit centers with up to 100 departments each; and customized reports. Program print spools. Requires 512K+, printer and external drive. \$395. Future Design, 13681 Williamette Dr., Westminster, CA 92683. NCP (Dec 85)

## PERSONAL FINANCE

**Dollars & Sense** is a bookkeeping program. Easy to use, with a **|||** good manual and excellent on-screen help. Will handle up to 120 separate accounts or money categories. Uses standard double-entry accounting techniques. \$149.95. Monogram, 8295 S. La Cienega Blvd., Inglewood, CA 90301. CP

**Electric Checkbook** keeps a running account of checkbook **|||||** transactions, balances checkbook to bank statements, tracks bills, and prints out checks. Provides detailed financial statements, calculates net worth, lists expenses by category and tracks personal cash flow. \$79.95. State of the Art, 3191-C Airport Loop, Costa Mesa, CA 92626. CP



**Financial Cookbook** provides nearly 3 dozen "recipes" to help users figure out financial formulas (i.e., mortgage costs at different percentage rates) by inputting pertinent data. Very user-friendly. \$44.95. Electronic Arts, 2755 Campus Dr., San Mateo, CA 94403. CP

**Financial Utilities Pack** is a set of applications that allow users to figure annuities, compound and simple interest, depreciation and amortization. Simple and well documented. \$69. Cognitive Software, PO Box 26948, Austin, TX 78755. NCP

**Forecast** is a tax estimating and what-if program designed to work with and use *Dollars & Sense* files. Straightforward, easy to use program. \$69.95. Monogram, 8295 S. La Cienega Blvd., Inglewood, CA 90301. CP

**Market Pro** is a comprehensive portfolio management program for the generation of fundamental data as well as technical charts and graphs. Requires 512K+, external drive and Hayes-compatible modem. \$395. Pro Plus Software, 2830 E. Brown Rd., Mesa, AZ 85203. NCP (Nov 86)

**Profit Stalker II** is a program for the generation of charts in order to organize data on stocks, mutual funds and commodities. Data is downloaded to the program or manually entered. Free upgrades and excellent support. Requires 512K+ and a Hayes-compatible modem. \$250. ButtonDown Software, PO Box 19493, San Diego, CA 92119. NCP (Aug 86)

## DATABASES

**Business Filevision** is a masterpiece of Macintosh programming, the only true graphic database on any micro. Much more powerful than the original, accepts *MacPaint* graphics. \$395. Telos Software, 3420 Ocean Park Blvd, Santa Monica, CA 90405. CP (Feb 86)

**dMac III** is a dBase compatible data base. It's semi-useful for converting already existing PC dBase files, not recommended for creating Mac data bases from scratch. Documentation is lacking, program is buggy. \$495. Format, 11770 Bernardo Plaza Ct., San Diego, CA 92128. CP (Nov 86)

**Double Helix** is an environment to generate custom applications built around a data base-type framework. Contains enhancements to *Helix* 2.0. Includes custom menus, sub form windows, password protection, and a universal dump and load parser. Ability to store pictures as data fields. \$495. Odesta, 4084 Commercial Blvd., Northbrook, IL 60062. NCP (Oct 86)

**Factfinder** is a free-form information organizer (medium-duty database). Users enter data on to factsheets in any manner desired and select keywords. Searches are by name or keyword. \$149.95. Forethought, 250 Sobrante Way, Sunnyvale, CA 94086. NCP (Feb 86)

**File** is a flexible data manager. Creates files for a variety of data, including simple graphics. Files are created in simple row/column format, but reports and forms are easily customized by moving field names around on a blank form. \$195. Microsoft, 16011 NE 36th Way, Redmond, WA 98052. CP

**FileMaker** is a nonrelational database that combines lots of power with ease of use. Calculation fields make the creation of invoices and similar documents a snap. Reports can include graphics and multiple data layouts are easy to construct. \$195. Forethought, 250 Sobrante Way, Sunnyvale, CA 94086. NCP

**FileMaker Plus** retains features of *FileMaker* and reads *FileMaker* data, also displays up to 8 files, uses "lookup" to retrieve data from other files. Enhanced calculation with many additional functions. Scripts automate a sequence of actions. Mac Plus compatible. \$295. Requires 512K+. Forethought, 250 Sobrante Way, Sunnyvale, CA 94086. NCP (Nov 86)

**Filevision** is a simple database that can change the way you think about data and data organization. Records are based around user created graphics screens. Screens and records can be linked in complex ways. \$195. Telos Software, 3420 Ocean Park Blvd., Santa Monica, CA 90405. CP

**Helix** is a relational database that makes extensive use of icons. Setup is easy due to adherence to the Mac interface. The manual is clear, thorough and well-indexed. Complicated for simple database applications, excellent where a relational power is needed. Requires 512K+ and external drive. \$395. Odesta, 4084 Commercial Blvd., Northbrook, IL 60062. NCP (Mar 86)

**MacBase** is a forms-oriented relational database. Unfortunately, precise forms are hard to create. Allows calculated fields and has quick and powerful search capabilities. Best when much data is to be looked up, but not frequently entered. Requires 512K+. \$195. Eqtron Corp., 330 Bay St., Toronto, Ont. M5H 2S8, Canada. NCP (Jul 86)

**MacRelax** is a relational list manager that stores data in a column format. Files can be related by sharing a common field. Flexible design for reports. Easy to use but not obvious to learn. \$99.95. 512K required. Arrays, 6711 Valjean Ave., Van Nuys, CA 91406. NCP (Jan 87)

**MegaFiler** is a simple file manager. Its limited capabilities have been far surpassed by cheaper and easier to use programs. Valuable only in conjunction with *MegaForm*. \$195. MegaHaus, 5703 Oberlin Dr., San Diego, CA 92121. CP

**Omnis 3** is a power database, featuring concurrent multiple file management. Can handle 24 files, 12 at a time, and is fully relational. Create custom environments including user-defined menus, commands and dialogs. \$495. Blyth, 2655 Campus Dr., San Mateo, CA 94403. CP (Mar 86)

**OverVUE** is a power-packed relational database that has extensive sorting, summarizing and report generation capacity. Has macros and a charting function. Good manual. It can exchange files with a very wide variety of other programs (including IBM software). \$295. ProVUE, 222 22nd St., Huntington Beach, CA 92648. NCP (Nov 85)

**Professional Bibliographic System** is a database designed for storing and retrieving bibliographies. Predesigned forms for 20 types of entries. Citations automatically formatted with correct punctuation for printing. \$295. Personal Bibliographic Software, PO Box 4250, Ann Arbor, MI 48106. CP (Feb 86)

**Record Holder** is a flexible, easy-to-use form-oriented data manager. Set up is particularly simple and the search features are powerful. \$49.95. Software Discoveries, 99 Crestwood Rd., Tolland, CT 06084. NCP (Apr 86)

**Reflex For The Mac** is a flexible relational database. Excellent report generator gives full control over appearance, style of output. Requires 512K+, second drive or hard disk, highly recommended. \$99.95. Borland International, 4585 Scotts Valley Dr., Scotts Valley, CA 95066. NCP (Nov 86)

## NUMBER CRUNCHING

**ClickOn Worksheet** is a 50-row by 20-column spreadsheet that loads onto any system disk as a desk accessory. Though small in size, it has remarkable capabilities for a desk accessory. Changes in the worksheet automatically reflect in charts. \$79.95. T/Maker Company, 2115 Landings Dr., Mountain View, CA 94043. NCP

**DesignScope** is a construction kit for digital and analog circuits. Up to 254 components can be utilized in a single circuit, and the equivalent of a dual trace oscilloscope plots output in real-time. Good for testing basic (and not-so-basic) circuitry without touching a breadboard. \$249.95. BrainPower, 24009 Ventura Blvd., Calabasas, CA 91302. NCP

**MacCalc** is a fast, competent, full-featured spreadsheet with impressive built-in functions, font control, on-line help, ability to expand columns and rows and read/write SYLK or WKS files. The worksheet is 125 columns by 999 rows. Cell names, printing power make *MacCalc* a very flexible pure spreadsheet. \$99.95. Bravo Technologies, c/o DPAS, PO Box T, Gilroy, CA 95021. NCP (Sep 86)

**Multipan**, the first Mac product from someone other than Apple is beginning to show age. Still a very capable basic spreadsheet with simple sorting, 63 columns by 255 rows, many

# MINIFINDERS



built-in functions, other standard spreadsheet features. \$199.95. Microsoft, 16011 NE 36th Way, Redmond, WA 98052-6399. CP (Mar 86)

**ProAnalysis** is a powerful real estate investment analysis program. This program uses the Mac interface as well as any program yet published. Analytic power is combined with report generating so good you have to see it. Requires 512K+. \$295. Technalysis Services, 14555 DeBell Rd., Los Altos Hills, CA 94022. CP

**StatView** is a high-powered statistical calculation package. Easily and efficiently handles all the common statistical techniques and many uncommon tests. Has a user-definable area as well. Easy to use and well documented. \$199.95. BrainPower, 24009 Ventura Blvd., Calabasas, CA 91302. NCP (May 86)

**StatView 512+** is a very intuitive statistical analysis program with tools needed to understand any set of data. Holds data in a spreadsheet-like form. Full-featured, fast and accurate. Extremely wide range of analyses possible. Requires a minimum of 512K of RAM & 800K of disk space to operate. \$349.95. BrainPower, 24009 Ventura Blvd., Calabasas, CA 91302. NCP (Dec 86)

**StatWorks** is a general-purpose statistics package that is both powerful and easy to use. Handles all standard tests and procedures. Single variable and multivariate statistics are supported. \$125. Cricket Software, 3508 Market St., Philadelphia, PA 19104. NCP (May 86)

## GRAPHICS & DESIGN

**Animation Toolkit I** lets users prepare "film clips" of moving objects which play back at varying speeds, like old-fashioned flip books. Each film clip plays repetitiously as it is being constructed. A limited animation tool, but a lot of fun. \$49.95. Ann Arbor Softworks, 308½ S. State St., Ann Arbor, MI 48104. CP

**Art Grabber with Body Shop** is a desk accessory that lets users browse *MacPaint* documents, selecting and copying as they choose. Selections can be larger than screen size. Also included are *MacPaint* documents and templates to allow the creation of people in your art. \$49.95. Hayden, 600 Suffolk St., Lowell, MA 01853. NCP

**CalendarMaker** creates monthly calendars in a variety of formats. Users can incorporate their art and daily notes. Note files can be imported from a variety of DA calendars and outliners. Available as shareware and prelicensed. \$30. CE Software, 801 73rd St., Des Moines, IA 50312. NCP (Dec 86)

**Chart** can easily create area, bar, column, line, pie, scatter and combination charts. A total of 42 styles are provided. Limited to 100 data items (64 in a series) on a 128K Mac, approximately twice that on a 512K Mac. \$125. Microsoft, 16011 NE 36th Way, Redmond, WA 98052-6399. CP

**ClickArt Special Effects** is a *MacPaint* enhancement desk accessory. Allows the user to distort, stretch, rotate and use perspective on *MacPaint* documents. A necessary addition for all serious users of *MacPaint*. \$49.95. T/Maker, 2115 Landings Dr., Mountain View, CA 94043. NCP (Apr 86)

**ColorPrint** facilitates color printing on the standard *ImageWriter*. *MacPaint* files set up as overlays are read into *ColorPrint*, and the program controls proper positioning registration and colored ribbon switching. Good results require lots of hard work, but it's cheaper than an *ImageWriter II*. \$49.95. Esoft Enterprises, PO Box 179, Owasso, OK 74055. NCP (Mar 86)

**ComicWorks** is a graphics wonder. Manipulate bit mapped graphics as independent objects, with up to 64 layers of matting. An airbrush, multiple page capacity, full-screen drawing, and two disks of gorgeous artwork round out this package. Needs better *LaserWriter* support. \$79.95. Mindscape, 3444 Dundee Rd., Northbrook, IL 60062. NCP (Nov 86)

**Cricket Graph** easily generates 12 graph types. Multiple windows can be displayed. *Graph* prints in up to 8 colors with up to 16

patterns. Self-generating macro formatting. *Switcher*, HFS, *LaserWriter* and plotter compatible. \$195. Cricket Software, 3508 Market St., Philadelphia, PA 19104. NCP (Jun 86)

**DaVinci Building Blocks** features predrawn blocks of brownstone, garden, and skyscraper portions that can be cut and pasted together to form landscape and architectural drawings. Fun for even non-pro's. \$79.95. Hayden, 600 Suffolk St., Lowell, MA 01853. NCP

**DrawArt** is the first *MacDraw* clip-art disk. Unfortunately, the assortment of graphics is too ragtag and the quality of images ranges from great to terrible. No image index. \$49.95. Desktop Graphics, 400 Country Dr., Dover, DE 19901. NCP (Oct 86)

**Easy3D** is a three-dimensional, solid modeling masterpiece. Four variable light sources, powerful sculpting tools and an exquisite user interface make this a must-have for graphics enthusiasts. Requires 512K+. Enabling Technologies, 600 S. Dearborn, Chicago, IL 60605. NCP (May 86)

**Fluent Fonts** is a two-disk collection of fonts. Forty-nine different items are included. All install easily in user Systems. Most are well executed and some are extraordinarily nice. This is a real bargain for font lovers. \$49.95. Casady, PO Box 223779, Carmel, CA 93922. NCP

**Fontastic** is the best font editor now available for the Mac. Features a large editing window with a grid to make positioning easy. Select letters to edit by clicking on a matrix of the font. Allows scaling of existing fonts and previewing the various styles (italic, bold, etc.). \$49.95. Altsys, PO Box 865410, Plano, TX 75086. NCP (Dec 85)

**Fontographer** is a complex, but excellent laser font creator. The fonts created have 300 bits per inch resolution. The fonts are actually downloadable PostScript files. \$395. Altsys, PO Box 865410, Plano, TX 75086. CP

**FullPaint** is an expanded version of *MacPaint*. Features include full-screen drawing, multiple documents open simultaneously, brush editing, movable tool palettes, special text effects and much more. It fills the gaps left by *MacPaint*. \$99.95. Ann Arbor Softworks, 308½ State St., Ann Arbor, MI 48104. NCP (Jun 86)

**GrayPaint** is a graphics system for creating gray-level pictures. At the time of review, program was unfinished with some non-working functions. What did work was impressive. \$59.95. MacNifty Central, 6860 Shingle Creek Pkwy., Minneapolis, MN 55430. NCP (Dec 86)

**GridMaker** is a tool for artists who use perspective. The program automatically generates a series of three-dimensional plane sets that can be pasted into *MacDraw*. Sizes and viewing vantage point are easily modified. \$49. FolkStone Design, Inc., PO Box 86982, North Vancouver, BC V7L 4P6, Canada. NCP (Nov 86)

**Home Design** is a home planning tool that includes three disks full of *MacPaint* files of household items needed to design a home. *Art Grabber Installer* is included for easy maneuvering of items. The professional home designer, as well as the amateur will feel at ease using this program. \$79.95. Hayden, 600 Suffolk St., Lowell, MA 01854. NCP (Jun 86)

**Human Forms** allows users to create perfectly proportioned humans in any posture or position. Contains over 1000 separate body parts. Tiny X marks make limb, head and detail placement perfect. Requires *MacPaint*. \$59.95. Bert Monroy, 205 Luquer St., Brooklyn, NY 11231. NCP

**Icon Switcher** changes icons for applications and the documents they generate, permitting you to customize icons for personal work. New icons can be built pixel by pixel in the program or created in *MacPaint* and pasted in. \$19.95. PBI Software, 1111 Triton Dr., Foster City, CA 94404. NCP

**LaserFonts** are new fonts for the *LaserWriter*. Users download them to their machines. Very high quality and very simple to use. *Willamette* looks like *Avant Garde*. *MicroFonts* provides tiny, expanded and condensed versions of the *LaserWriter's* own fonts. \$29.95 each. Century Software, 2306 Cotner Ave., Los Angeles, CA 90064. NCP

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# MINIFINDERS



**LaserWorks** is a high-resolution font and graphics editor, producing LaserWriter-compatible end products. Its numerous well-designed features make it suitable for users of all levels, from beginners to pros. Requires 512K+ and external drive or hard disk. \$299. EDO Communications, 63 Arnold Way, W. Hartford, CT 06119. CP (Sep 86)

**The Mac Art Dept.** is a collection of over 150 graphic images ranging from foods to hands holding signs to borders. Best suited for letterheads, memos, other business use. \$39.95. Simon & Schuster, Computer Software Div., 1230 Ave. of the Americas, New York, NY 10020. NCP (Mar 86)

**Mac-a-Mug** is an Identikit type program for creating faces from facial feature files. Uses scroll bars that are slow and jerky. Lots of creative fun. 512K+ Mac required. \$59.95. Shaherazam, PO Box 27731, Milwaukee, WI 53226. CP (Jul 86)

**MacDraft** is an object-oriented graphics program. It sports advanced features such as variable scaling, single degree rotation, complex arcs and a FatBits-like magnification mode. Best used to complement MacDraw, not replace it. \$239. Innovative Data Design, 1975 Willow Pass Rd., Concord, CA 94520. CP (Feb 86)

**MacDraw** is an object-oriented structured graphics program. Can be used to design forms, create presentation materials and do technical illustrations. Drawing sizes up to 8 feet by 10 feet are possible. Text can be easily generated and integrated in the graphics. \$195. Apple Computer, 20525 Mariani Ave., Cupertino, CA 95014. NCP (Nov 85)

**MacModel** is an economical 3D package with shading. Somewhat sketchy Mac interface, shading speed slow (but acceptable), grainy image resolution. On-line help screens are a welcome addition. Frequent updates and low price make this a reasonably good buy. \$40. A.P.P.L.E. CO-OP, 290 SW 43rd St., Renton, WA 98055. NCP (Aug 86)

**MacPaint** is the graphics program that started a whole new genre. Still the best freehand graphics tool. Version 1.5 supports 512K+ Macs and the LaserWriter. Multiple tools, patterns and too numerous to describe. \$125. Apple, 20525 Mariani Ave., Cupertino, CA 95014. NCP (Nov 85)

**MacPublisher** is a tool for creating newsletters. Allows multiple page issues. Layout is fairly easy but hard to do precisely. Runs slowly on a 128K Mac; a 512K should be considered a requirement. Printer support, including LaserWriter, is good. \$99.95. Boston Software Publishers, 19 Ledge Hill Rd., Boston, MA 02132. CP

**MacPublisher II** is the souped-up version of MacPublisher. Allows MacWrite and Word files to be imported and edited; allows up to 96 pages; supports kerning, borders, cropping, and it runs on 128K Macs. \$195. Boston Software Publishers, 1260 Boylston St., Boston, MA 02215. CP (Sep 86)

**Mac3D 2.0** is a feature-laden 3D program with a MacDraw-like interface. PostScript-resolution shading with six variable light sources, user-definable tools, and many more features make this a graphic powerhouse. \$249.95. Challenger Software, 18350 Kedzie Ave., Homewood, IL 40430. NCP (Jan 87)

**Magic Slate** is a graphics and design program with built-in special effects and custom features. Fun but sometimes difficult to use. Great for pattern design, block and geometric graphics and watercolor-style "washes." Requires 512K+. \$99. Devionics, PO Box 2126, Covina, CA 91722. CP (Feb 86)

**MapMaker** produces maps and analyses of related geographical data. Additional data disks available. Documentation could be better. Requires 512K; second drive recommended. \$295. Select Micro Systems, 2717 Crescent Dr., Yorktown Heights, NY 10598. NCP (Jan 87)

**M.U.D (MacroMind Utility Disk)** is a disk of various utilities for MusicWorks and VideoWorks owners. It also contains CheapPaint and Art Grabber+, two graphics desk accessories that are musts for graphics enthusiasts. Hayden, 600 Suffolk St., Lowell, MA 01854. NCP (Feb 86)

**PageMaker** is an advanced layout and makeup program. Can easily create multiple page documents. Output is optimized

for LaserWriter. Good documentation. \$495. Aldus, 411 First Avenue South, Seattle, WA 98104. CP (Jun 86)

**Phoenix 3D** is an economical 3D drawing package, with features that belong in a more expensive program. Multiple light sources, fine object placement and orientation control, and a good selection of shapes. \$39.95. Dreams of the Phoenix, PO Box 10273, Jacksonville, FL 32247. NCP (Oct 86)

**PictureBase** is a program and accompanying desk accessory for organizing MacPaint and MacDraw files. Graphics are organized into libraries, and can be searched for by keywords. \$69.95. Symmetry Corporation, 761 E. University, Mesa, AZ 85203. NCP (Jun 86)

**PosterMaker** can enlarge MacPaint drawings by up to 3200 percent. Full-screen cut and copy are supported, so any portion of a Paint document can be selected and scaled. Borders can be added automatically. Includes some nice digitized graphics files. \$39.95. Strider Software, Beecher Lake Rd., Pembine, WI 54156. NCP (Jul 86)

**The Print Shop** makes it easy to create greeting cards, banners, letterhead and signs in minutes. Offers full access to fonts, styles, graphics. Can pull images from MacPaint files or off the Clipboard. Fun and easy to use. \$79.95. Broderbund, 17 Paul Dr., San Rafael, CA 94903. CP (Dec 86)

**ReadySetGo** is a page makeup program for 512K+ Macs. Users build up pages from blocks of text, graphics and rules. Text and art may be pasted in from another source or created within the program. Good LaserWriter support. \$195. Manhattan Graphics, 163 Varick St., New York, NY 10013. NCP (Apr 86)

**Slide Show Magician 1.3** is useful for creating full screen audiovisual presentations on the Mac. Frame branching, improved editing capabilities, external cassette recorder synchronization and digitized sound capabilities make this much more powerful than the original. \$59.95. Magnum, 21115 Devonshire St., Chatsworth, CA 91311. CP (Mar 86)

**Storyboarder** produces working animated storyboards for use in film and video production. Imports graphics from MacPaint; allows screen masking to simulate television, 35mm or 70mm screen widths; allows limited animation and special effects. Storyboards can be printed in several formats. \$495. American Intellware, PO Box 6980, Torrance, CA 90504. CP (Nov 86)

**VideoWorks** is a full-featured animation package. Professional quality animations are easily accomplished using the tools provided. Features frame-by-frame and real-time modes. Comes with an art disk of pre-drawn images and Art Grabber. \$99.95. Hayden, 600 Suffolk St., Lowell, MA 01854. CP (Nov 85)

**World-Class Fonts!** comes in two volumes of three disks each. Includes all the Mac the Knife fonts and a lot more, including 2 useful utilities. This is now the best collection of ImageWriter fonts available. Each volume: \$39; both volumes: \$59. Dubl-Click Software, 18201 Gresham St., Northridge, CA 91325. NCP (Dec 86)

## COMMUNICATIONS

**HomePak** is a package consisting of HomeTerm, an excellent simple telecommunications program with strong macro features; HomeFind, an electronic filer as bad as HomeTerm is good; and Apple's Edit, a simple, non-HFS-compatible text-file editor. \$49.95. Batteries Included, 30 Mural St., Richmond Hill, Ontario L4B 1B5, Canada. NCP (Aug 86)

**InTalk** comes with its own communications command language able to do unattended sessions. Supports Xmodem and MacBinary. Has a macro key function. Many sample set up documents and command language files provided. \$145. Palantir, 12777 Jones Rd., Houston, TX 77070. CP (Prem)

**MacTerminal** provides basic telecommunications and terminal emulation for the Mac user. Doesn't have macros nor any sort of auto redial/auto logon capability. Best for those needing faithful VT100 or IBM 3278 emulation — it is





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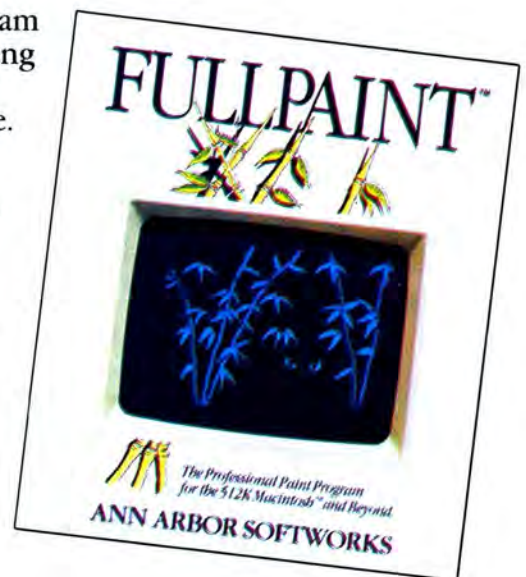


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Now there's MindWrite, the new standard in Macintosh word processing that liberates you to write the way you think.

## Works The Way You Do

MindWrite is a powerful word processor with totally integrated outlining that lets you write the way you think. Because now you can outline while you write. Write while you outline. Jump back and forth between topics and text, move easily around your document, put ideas on hold, change your mind, or advance to new thoughts without losing your concentration. Or your patience.

## Organizes Creativity

MindWrite makes it easier to organize your thoughts on paper. You can now spend more time being creative and less time word processing. Arrange and rearrange text intuitively without awkward organizational problems. You'll see your work flow smoothly from concept to final document.

## Gives You Total Control

What you see is what you get (WYSIWYG) through MindWrite's powerful, flexible and easy-to-use integrated operation. Display multiple views of the

<p>Word processing and outlining features are totally integrated and always available — in every window, in every document.</p>		<p>Font Style MindWrite</p>
<p>MindWrite's multi-level rulers (one shown) make it easier to create complex documents.</p>		<p>◆ Innovative Fe</p>
<p>Pick up and move text with the hand cursor — easier than cut and paste. And renumbering is automatic.</p>	<p><b>WHAT YOU SEE IS WHAT YOU GET</b> MindWrite sets a new standard in and enhance the writing process — polished communications. In addition from a Mac word processor, MindW</p>	<ul style="list-style-type: none"> <li>◆ Multi-Selec</li> <li>◆ Drag Text</li> <li>◆ Auto-Numb</li> <li>◆ Multi-Wind</li> <li>◆ Accumulati</li> <li>◆ Word Count</li> <li>◆ Instantly cou words, and p when you mu</li> </ul>
<p>Multi-Selection lets you act on many headings and/or paragraphs simultaneously. Change font or style, move, copy, etc.</p>	<p><b>Innovative Features:</b></p> <ol style="list-style-type: none"> <li>1. <b>Multi-Selection</b> Select then act on an unlimited number of te size. Or drag all selected items elsewhere a</li> <li>2. <b>Drag Text</b> Dragging is easier than cutting and pasting. hand cursor and drag to a new location</li> <li>3. <b>Auto-Numbering</b> When you update a list or outline (like this</li> </ol>	<ul style="list-style-type: none"> <li>◆ Mark</li> <li>◆ Sort</li> <li>◆ Organize list alphabetical</li> <li>◆ Preference</li> <li>◆ File Conver</li> </ul>
<p>Collapse or expand outlines to any level of detail. To reorder, drag with hand cursor. Renumbering is automatic — on screen and in print.</p>		
<p><i>Reads/writes MacWrite files and reads Think Tank files.</i></p>		
<p><i>Click zoom buttons to resize windows instantly. Convenient "Windows" menu activates hidden windows.</i></p>		
<p><i>Display a collapsed outline in one window with detail expanded in another.</i></p>		

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In addition to the standard features you expect from a Mac word processor, MindWrite offers many innovations. Here are just a few:



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Select then act on an unlimited number of text segments, adjacent or not. Change point size. Or drag all selected items elsewhere and see them instantly reordered as you chose them.

#### 2. Drag Text

Dragging is easier than cutting and pasting. Pick up any number of headings the hand cursor and drag to a new location.

#### 3. Auto-Numbering

When you update a list or outline (like this one), or even rearrange entire sections of a document, MindWrite instantly rennumbers for you — on screen and in print.

#### 4. Multi-Windows

The number of document windows you can display is limited only by your system memory. Convenient window management tools make working with many windows easy.

#### 5. Accumulating Clipboard

All your cut and copied text is accumulated in the clipboard. Convenient Undo feature to protect you from most mistakes.

#### 6. Word Count

Instantly counts characters, words, and paragraphs. Invaluable for word processing.

#### 7. Mark

Identifies paragraphs that have been revised within a document. Easily find and review recent changes to your document.

#### 8. Sort

Organize lists or outlines alphabetically.

#### 9. Preference

Customize MindWrite to fit your personal needs with preference sets you create and save. Default font and size for new documents, enable/disable Quick key shortcuts, automatic numbering, show/hide rulers and pagination, choose search options, and more.

#### 10. File Conversion

No need to start over. MindWrite can save MindWrite files as PageMaker files.



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Please send \_\_\_\_\_ copies of MindWrite at \$125 each. Include \$3 handling/shipping for each copy (in the continental U.S.). Calif. residents please add 6% sales tax. To order today, use this coupon or call our Toll Free number: **800/367-4334** and, California only **800/654-5599** with your credit card number.

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# MINIFINDERS



superb at those. \$99. Apple Computer, 20525 Mariani Ave., Cupertino, CA 95014. NCP (Prem)

**Microphone** is a high-powered terminal program that's easy enough for novices. Very powerful command language allows full automation of communications, if desired. \$74.95. Software Ventures, 2907 Claremont Ave., Berkeley, CA 94705. NCP (Jun 86)

**Red Ryder** is a full-featured telecommunications program that supports MacBinary, Xmodem and Kermit. Remote service procedures, auto procedure writer and keyboard macros. \$40. The FreeSoft Corp., 10828 Lacklink, St. Louis, MO 63114. NCP (Jun 86)

**Smartcom II** balances power and ease of use. Capable of unattended operation and has a very powerful command language. Supports MacBinary, Xmodem, and Hayes Verification protocols. The large screen buffer can easily be archived. \$149. Hayes, 5923 Peachtree Industrial Blvd., Norcross, GA 30092. NCP (Prem)

**Telescope** is the power telecommunicator's terminal program. Can be configured to emulate any terminal. The documentation does not adequately explain the many features. \$125. Mainstay, 28611B Canwood St., Agoura Hills, CA 91301. NCP (Jun 86)

**VersaTerm** features include DEC VT100 and VT52, Tektronix 4014 graphics terminal and Data General DG200 emulation. Supports Xmodem and MacTerminal Xmodem protocols and MacBinary. *VersaTerm* is easy to use and well documented. \$99. Peripherals, Computers & Supplies, 2457 Perkiomen Ave., Mt. Penn, PA 19606. CP (Prem)

## WORD PROCESSORS

**Document Compare** allows users to compare any two *MacWrite* 4.5, ASCII or MDS documents. Differences in spelling, punctuation, formatting and wording are detected. Documents can be printed out with differences highlighted. \$99. The Model Office Company, 49 Wellington Street East, Toronto, Canada M5E 1C9. CP (May 86)

**EgWord** is a *MacWrite* lookalike that allows full Japanese kanji word processing on the Mac. Does a superlative job of making Japanese text-entry as easy as possible. Great for students of Japanese, may find a place in international business as well. \$300. Counterpoint Systems, PO Box 1685, Cambridge, MA 02138. CP (Apr 86)

**Hayden's Speller** (version 1.2) is a batch-type spelling checker. It's flexible, but two drawbacks: small dictionary and you can't change number of unique words. \$19.95. Hayden Software, no longer in business. CP (Oct 86)

**Just Text** is a professional level word processor and page makeup program that generates PostScript output. Comes with a set of LaserWriter utilities that allow total manipulation of art and text. Requires LaserWriter or other PostScript compatible output device. \$195. Knowledge Engineering, GPO Box 2139, New York, NY 10116. NCP (Dec 85)

**Liberty Spell Checker** is a fast, effective interactive checker. Unfortunately, it has a few misspelled words. \$59.95. DataPak, 14011 Ventura Blvd., Sherman Oaks, CA 91423. CP (Oct 86)

**MacQAS** is a DA spelling checker with both a small and extended dictionary. Its best point is the excellent thesaurus, provides antonyms & glossary. A slow checker. \$99. EnterSet, 410 Townsend St., San Francisco, CA 94107. CP (Oct 86)

**MacIndexer** is a good writer's utility that takes much of the mechanical work and time out of preparing an index. Works with *MacWrite* and *Word*. Can generate word frequency counts. \$79.95. Boston Software Publishers, 1260 Boylston St., Boston, MA 02215. CP (Jul 86)

**MacLightning** is an interactive spelling checker in desk accessory form. Text can be checked on the fly or by selection. Works within many applications, and options include a thesaurus, medical and legal dictionary. \$99.95. Target Software, 14206 Southwest 136th St., Miami, FL 33186. NCP (Oct 86)

**Macspell+** (version 1.10) is a spelling checker that installs as a desk accessory. Works easily with *MacWrite* 4.5 and 2.2 and *Word*, but has some drawbacks. New version just available. Requires 512K+, two drives or hard disk. \$99. Creighton Development, 16 Hughes, Irvine, CA 92718. NCP

**MacSpell•Right** spelling checker has top notch dictionary and thesaurus, but works slowly. Limited to *MacWrite* 4.5. Publisher support nil with closing of company. \$89. Assimilation, no longer in business. NCP (Oct 86)

**MacWrite** is the basic Mac word processor. While it doesn't have every bell and whistle, it is more than adequate for most users. Features include global search and replace, page numbers indicated in the scroll bar and excellent LaserWriter compatibility. \$125. Apple Computer, 20525 Mariani Ave., Cupertino, CA 95014. NCP

**QuickWord** is a word processing accessory that adds sophisticated glossaries to *MacWrite*. Simple to install and use, yet powerful and efficient. \$49.95. EnterSet, 410 Townsend St., San Francisco, CA 94107. NCP

**The Right Word** (ver 3.0) is a standalone spelling checker that can be used with *Word*, *MacWrite* and *Jazz*. Dictionary scrolling can only be done one word at a time. You have to reload program to check each document. Biggest minus is speed. \$89. Assimilation, no longer in business. NCP (Oct 86)

**Spelling Champion** is a fast and accurate batch-type spelling checker. Backup feature allows you to undo corrections in a paragraph. Works only with *MacWrite* 4.5. \$39.95. Champion Software, 5201 South Hill Dr., Madison, WI 53705. NCP (Oct 86)

**Spellswell** is an effective and powerful standalone spelling checker. It has many advanced features such as capitalization and homonym checking and comes with a large, well-chosen dictionary. \$59.95. Greene, Johnson, 15 Via Chualar, Monterey, CA 93940. NCP (Oct 86)

**Thunder!** is the best spelling checker currently available. Has a 50,000-word dictionary. Features Learned Words (a superb glossary) and statistics. A very fast DA, it works interactively and in selection mode. Requires 512K+. \$49.95. Batteries Included, 30 Mural St., Richmond Hill, Ontario, Canada L4B 1B5. NCP (Dec 86)

**Word** is a power word processor for the Mac. It has just about every feature your heart could desire. Supports keyboard commands as well as the mouse. Does mail merge and multicolumn text. Integrates with the rest of the Microsoft line. \$195. Microsoft, 16011 NE 36th Way, Redmond, WA 98052-6399. CP (May 86)

**Word Handler** is a word processor with elements of *MacWrite* and *Word*. Can delete, rename, etc., without quitting. Has case change, flexible printing options and glossary. Slow. \$79.95. Advanced Logic Systems, 1283 Reamwood Ave., Sunnyvale, CA 94089. NCP (Oct 86)

## ORGANIZATIONAL TOOLS

**Acta** is an outline processor in desk accessory format. It has practically all the power of a standalone program, and then some. Can save files as *Acta* outlines, *MacWrite* or text files. A must-have for those who do outlining. \$59.95. Symmetry, 761 E. University Dr., Mesa, AZ 85203. NCP (Jul 86)

**Calllope** is a new type of outlining program. Chunks of information are manipulated as small "light bulbs" containing text. Related elements can be graphically connected, and their text information viewed in hierarchical order. Text files can be created for *MacWrite* editing. \$59.95. Innovation, PO Box 1317, Los Altos, CA 94023. NCP (Sep 86)

**DecisionMap** organizes data to facilitate decision making. Unique weighting abilities make this a powerful tool. The decision analysis process is long and some times complex, but never difficult. \$145. SoftStyle, 7192 Kalaniano'le Hwy., Honolulu, HI 96825. CP

**MacProject** allows a user to plan and track a project from beginning to end. Uses CPM to produce schedules with start

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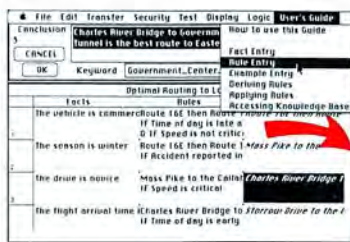


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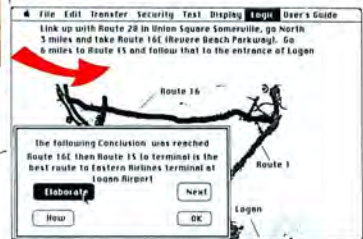
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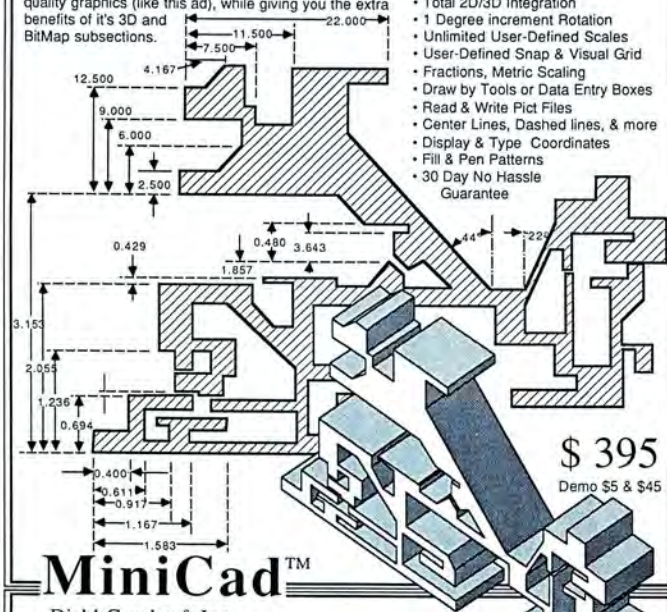
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### MiniCad 2D Computer Aided Design

If you need a professional 2D CAD system that goes beyond normal 'drawing' applications, and yet don't want to give up the Mac-like interface, take a look at MiniCad™ 2D/3D CAD system. It's 2D capabilities shown here can provide you with everything you need to produce high precision technical illustrations or high quality graphics (like this ad), while giving you the extra benefits of it's 3D and BitMap subsections.

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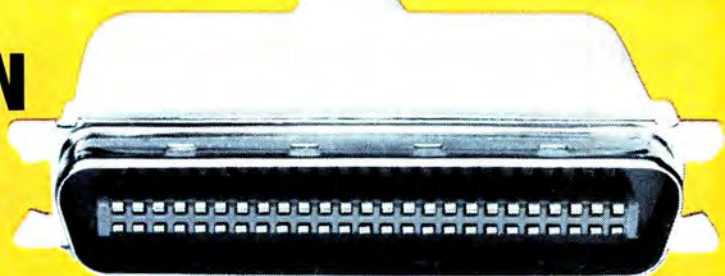
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-  How to solve the problem, instantly, of disks that don't show a Bomb icon, but still seem unbootable (Page 1)
-  How to manipulate very small images selected with the Lasso by "remote control," in MacPaint (Page 80)
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-  How to use a single key to create menu dividing lines that *don't* indent from the left edge in Microsoft BASIC (Page 104)
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Pascal and Modula-2 source code are nearly identical. Modula-2 should be thought of as an enhanced superset of Pascal. Professor Nikolaus Wirth (the creator of Pascal) designed Modula-2 to replace Pascal.

### Added features of Modula-2 not found in Pascal

- CASE has an ELSE and may contain subranges
- Programs may be broken up into Modules for separate compilation
- Machine level interface
  - Bit-wise operators
  - Direct port and Memory access
  - Absolute addressing
  - Interrupt structure
- Dynamic strings that may be any size
- Multi-tasking is supported
- Procedure variables
- Module version control
- Programmer definable scope of objects
- Open array parameters (VAR r: ARRAY OF REALS;)
- Elegant type transfer functions

Mac Plus Benchmarks (secs)	Compile	Link	Execute	Optimized Size
Sieve of Eratosthenes:	7.3	5.8	5.1	1257 bytes
Float	8.0	8.6	10.3	3944 bytes
Calc	6.8	5.7	4.3	1736 bytes
Null program	5.7	5.6	—	1100 bytes

```

MODULE Sieve;
CONST
  Size = 8190;
TYPE
  FlagRange = [0..Size];
  FlagSet = SET OF FlagRange;
VAR
  Flags: FlagSet;
  i: FlagRange;
  Prime, k, Count, Iter: CARDINAL;
BEGIN
  (*SS-SR-SA*)
  FOR Iter = 1 TO 10 DO
    Count = 0;
    Flags = FlagSet(); (* empty set *)
    FOR i = 0 TO Size DO
      IF (i IN Flags) THEN
        Prime = (i + 2) + 3; k = i + Prime;
        WHILE k <= Size DO
          INCL (Flags, k);
          k = k + Prime;
        END;
        Count = Count + 1;
      END;
    END;
  END;
END Sieve.

```

```

MODULE Float;
FROM MathLib0 IMPORT sin, ln, exp,
  sqrt, arctan;
VAR x, y: REAL; i: CARDINAL;
BEGIN (*ST-SA-SS*)
  x = 1.0;
  FOR i = 1 TO 1000 DO
    y = sin(x); y = ln(x); y = exp(x);
    y = sqrt(x); y = arctan(x);
    x = x + 0.01;
  END;
END float.

```

```

MODULE calc;
VAR a, b, c: REAL; n, i: CARDINAL;
BEGIN (*ST-SA-SS*)
  n = 5000;
  a = 2.71828; b = 3.14159; c = 1.0;
  FOR i = 1 TO n DO
    c = c * a; c = c * b; c = c / a; c = c / b;
  END;
END calc.

```

### Product History

The TDI Modula-2 compiler has been running on the Pinnacle supermicro (Aug. '84), Atari ST (Aug. '85), Amiga (Jan. '86) and will soon appear on UNIX in the 4th Qtr. '86.

**Regular Version \$89.95 Developer's Version \$149.95 Commercial Version \$299.95**  
 The regular version contains all the features listed above. The developer's version contains additional Mac modules, macros and demonstration programs - a symbol file decoder - link and load file disassemblers - a source file cross referencer - the kermit file transfer utility - a Modula-2 CLI. The commercial version contains all of the Mac module source files.

### Other Modula-2 Products

Kermit - Contains full source plus \$15 connect time to Compuserve. \$29.95  
 Examples - Many of the programs from Inside Macintosh translated into Modula-2. \$24.95  
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**MacOffix** combines many of the simple and necessary office functions in one easy-to-use package. Features include simple word processing, forms design, form letter production, report generation and filing. Good design nearly makes the manual unnecessary. \$79. Emerging Technology, 4760 Walnut St., Boulder, CO 80301. CP

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# MINIFINDERS



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**Smart Alarms** is the best reminder system for the Mac. Easy to use, versatile, and, well, smart. This self-running DA automatically reminds you of anything you enter into its Reminder file, giving you a wide range of useful advance warning options. \$49.95. Imagine Software, 2000 Center St., Berkeley, CA 94704. NCP (Oct 86)

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Solutions, Box 989, Montpelier, VT 05602. NCP (Dec 86)

**Hard Disk Util** uses patch files to allow users to mount and run specified programs on their hard disks. The list of patches is constantly expanding. \$89.95. FWB Software, 2040 Polk St., San Francisco, CA 94109. NCP

**HFS Backup** ranks as one of the preferred hard disk backup utilities. Backup by file/folder or last changes. Backup specifications can be saved as templates. Good graphic interface. Reliable program. \$49.95. PCPC, 6204 Benjamin Rd, Tampa, FL 33614. NCP (Dec 86)

**HFS Locator Plus** is the essential HFS desk accessory. It can search for a file by name or date of creation, create folders, move files from one folder to another, set a program to launch while in an application. \$34.95. PBI Software, 1111 Triton Dr., Foster City, CA 94404. NCP (Sep 86)

**Mac Disk Catalog II** is a utility that will quickly organize a moderate size disk library. Easy to use with powerful reporting and label-making features. \$49.95. New Canaan MicroCode, 136 Beech Rd., New Canaan, CT 06840. NCP (Dec 85)

**MacFlow** is a design tool created for programmers. Traditional flowcharting symbols are linked together, and a symbol can be connected to a separate flowchart file. Symbols can't be edited, precluding using MacFlow for other applications. \$125. Mainstay, 5211-B Derry Ave., Agoura Hills, CA 91301. NCP (Jan 87)

**MacInUse** tracks time spent in applications and saves info as text file. Installs on any disk, works in background. MFS, HFS compatible. Templates included for MacWrite, MS Word, Multiplan and Excel. Extremely valuable for tax purposes, client records, etc. V1.0. \$49. SoftView, 4820 Adohr Lane, Camarillo, CA 93010. NCP (Jan 87)

**MacLabeler** lets users instantly index and print labels for all the disks in a burgeoning collection. Choose border type and orientation of your label; index by folder or document. Starter set of labels is included. \$49.95. Ideaform, PO Box 1540, Fairfield, IA 52556. CP (Prem)

**MacLink** lets users transfer data between Macs and PCs. Can do special format transfers such as 1-2-3 to Multiplan and WordStar to MacWrite. Contains both Mac and PC disks, interface cable is optional. Has Mac and MS-DOS disks. \$125, \$155 with 8-ft interface cable. DataViz, 16 Winfield St., Norwalk, CT 06855. NCP

**MacNosy** is a global disassembler. A very advanced user can use this program to look into the code of virtually any program. This advanced tool can take you places no other Mac program could dream of going IF you have the skill to guide it. The documentation is sparse. For pros only. \$85. Jasik Designs, 343 Trenton Way, Menlo Park, CA 94025. NCP

**Mac + II** lets you run Apple II software on the Mac. Emulation speed is only 35 to 45 percent of a real Apple II, so graphics especially suffer. Games also run slow. Runs AppleWorks (Apple II integrated software). Good for ex-Apple II owners who have large software collections. \$149.95. Meacom, PO Box 272591, Houston, TX 77277. CP

**MacQwerty** is a set of three keyboard utility programs. Reconfigure allows users to assign any character to any key, Standard sets up a normal qwerty keyboard and Dvorak changes the key arrangement to the very efficient Dvorak layout. \$35. Paragon Courseware, 4954 Sun Valley Rd., Del Mar, CA 92014. NCP (Jul 86)

**MacServe** converts a Mac and a hard disk into a disk and print server. Uses the AppleTalk network and is easily hooked up. Users can partition the hard disk into multiple volumes. Runs in the background, so users can work on all machines in the network. \$250. Requires 512+ or Mac XL. Infosphere, 4730 SW Macadam, Portland, OR 97201. CP

**MacZap** is a three-part disk and memory utility. It can be used to recover some damaged files and disks, compare disks, analyze disk structure and make back-up copies of most disks. \$60. Micro Analyst, 2505 Roxmoor, Austin, TX 78723. NCP (Jan 86)

## UTILITIES

**Accessory Pak 1** is a set of useful applications and utilities. *Paint Cutter* alone is worth the price. That program allows users to browse and manipulate full page MacPaint documents. \$39.95. Silicon Beach, 11212 Dalby Pl., San Diego, CA 92126. NCP (Nov 85)

**Copy II Mac** does efficient sector and bit copies and in its latest version can back-up virtually all Mac software. Features graphic displays of copy progress. Comes with *MacTools*, a multiuse utility that can recover many damaged files. \$39.95. Central Point Software, 9700 SW Capitol Highway, Portland, OR 97219. NCP (Apr 86)

**Disk Ranger** is a speedy cataloguing program that doubles as an efficient labelmaker. Comes with pinfeed labels. Works with regular and hard disks. Can catalog HFS systems. \$49.95. Mainstay, 28611B Canwood St., Agoura Hills, CA 91301. NCP (Mar 86)

**Dubl-Click Calculator Construction Set** lets users design personalized calculators with a variety of standard and special functions. Finished calculators can be saved as installable desk accessories or as clickable applications. \$59. Dubl-Click Software, 18201 Gresham St., Northridge, CA 91325. NCP (Apr 86)

**Fedit Plus** is the file and disk editor for everyone, from newest Mac owner to oldest. It can do more for your disks and files than any other application. Can recover deleted MFS files. If you own a Mac, get it. HFS-compatible. \$40. MacMaster Systems, 939 E. El Camino Real, #122, Sunnyvale, CA 94087. NCP (Sep 86)

**FlashBack** is a utility to backup HFS hard disks onto floppies. A unique graphic display of the HFS directory facilitates file selection. The program can handle files larger than 800K. \$59.95. Mainstay, 28611B Canwood St., Agoura Hills, CA 91301. NCP (Nov 86)

**Glue** adds a print-to-disk capability to many programs. *ImageSaver* installs as printer driver, *Viewer* allows copying and printing of *Glue* files. Handy utility for desktop publishers. \$49.



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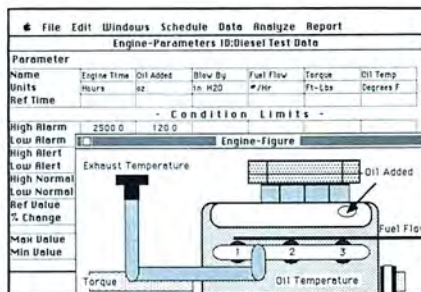
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Name	Engine Time	Oil Added	Blow By	Fuel Flow	Torque	Oil Temp
Units	Hours	oz	In. H2O	#/hr	Fl-Lbs	Degrees F
- Measurement Values -						
Date/Time	125.0	114.0	4.4	110.9	674.3	249.0
May 29, 1985	146.0	52.0	4.2	110.7	683.1	249.0
May 30, 1985	168.0	105.0	4.5	111.1	676.7	248.0
Jun 01, 1985	192.0	102.0	4.1	110.6	696.2	249.0
Jun 02, 1985	214.0	113.0	5.0	110.7	697.2	249.0
Jun 03, 1985	237.0	72.0	4.8	111.1	676.2	250.0
Jun 04, 1985	260.0	82.0	4.6	110.5	693.0	247.0
Sample No.	5 (Hide) - Measurement Remarks -					
#1	Engine Running Rough					
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	23					



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# MINIFINDERS



**myDiskLabeler** is an excellent label making program. It can read **||||** directories, or use large or small icons, or anything else the user desires. Comes with 54 pre-cut labels on pinfeed paper. HFS compatible. \$44.95; with color printing ability (on the ImageWriter II), \$54.95. Williams and Macias, PO Box 19206, Spokane, WA 99219. NCP (Aug 86)

**'Ncryptor** is a simple, safe program that lets users password their **||||** files. The same program is used for encoding and decoding. This is the best product in its category. \$39.95. Mainstay, 28611B Canwood St., Agoura Hills, CA 91301. NCP

**Packer** is a simple utility that compresses files. It can be used to **||||** save disk space and also protect files. Typical space savings range from 20 to 50% depending on the original file type and size. This is the best program of its type so far. \$29. Bobbing Software, 67 Country Oaks Dr., Buda, TX 78610. NCP (Jun 86)

**PackIt III** is an essential utility. Primarily used to temporarily **||||** "glue" files together, it can also compress and encrypt. Feeware. \$10, \$10 for printed manual. Harry R. Chesley, 1850 Union St., San Francisco, CA 94123. NCP (Jan 87)

**PC to MAC and BACK** has both Mac and MS-DOS disks. This **||||** program efficiently transfers text and other data between PCs and Macs. The documentation is excellent. Does special format transfers such as *WordStar* to *MacWrite*. Includes a cable for direct Mac to PC connections. \$149.95. dillithium Press, 8285 SW Nimbus, Beaverton, OR 97005. NCP

**Quick & Dirty Utilities, Volume One** is a disk chock full of the **||||** handiest programs you have ever bought. Included are a super disk catalogue, a desk accessory mover and more. Several desk accessories including a menu bar clock and a terminal are on the disk. \$39.95. Dreams of the Phoenix, PO Box 10273, Jacksonville, FL 32247. NCP (Nov 85)

**Switcher** is Andy Hertzfeld's contribution to Mac productivity. This **||||** program lets users run several programs at once (up to 8 on a 1-megabyte or larger machine). Switching between the programs is near instantaneous. Requires 512K+. \$19.95 from Apple, free from BBSs, included with some third-party applications. Apple Computer, 20525 Mariani Ave., Cupertino, CA 95014. NCP

**Tempo** is a desk accessory that allows most Mac commands to be **||||** intelligently recorded and played back. Capabilities include pausing, conditional branching, time functions, input testing and macros that work between applications. \$99. Affinity Micro Systems, 1050 Walnut St., Boulder, CO 80302. NCP (Jul 86)

**TMON** is the debugger for the Mac. This isn't open to question. **||||** **TMON** is simply the best. Comes with the latest version of Darin Adler's Extended User Area. \$100. ICOM Simulations, 626 Wheeling Rd., Wheeling, IL 60090. NCP

**TurboCharger 2.0 rev. D** is a RAM cache utility for 512K and **||||** larger. Works on most hard disks and Mac XLs. Dramatically improves any program you use that heavily accesses the disk, like *MacPaint*. \$69.95. Microsystems, PO Box 1249, Capitola, CA 95010. NCP (Jan 87)

**TurboDownload** is a desk accessory designed specifically to **||||** increase the speed of Xmodem data transfers from national databases to your Mac. Speed increases range upward from 50% to over 300% at 2400 baud. \$39.95. Mainstay, 28611B Canwood St., Agoura Hills, CA 91301. NCP

**Twelve-C Financial Desk Accessory** brings all the power and **||||** functionality of a Hewlett-Packard 12C programmable calculator to your desktop. Can be programmed and all registers can be viewed while calculator is running. \$39.95. Dreams of the Phoenix, PO Box 10273, Jacksonville, FL 32247. NCP

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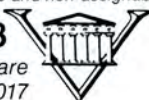
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# MINIFINDERS



**II in a Mac** is a graphically oriented Apple II emulator with unique **ttt** features, such as text and graphics copy from Apple screen to Mac Clipboard. 40 column screen is too small, 80 column better. Suffers speed problems associated with "virtual machine" emulation. \$69. Micro-W Distributing, 1342B Route 23, Butler, NJ 07405. CP

**TypeNow** is a desk accessory that allows the Mac and ImageWriter **ttt** to function as an electronic typewriter. Type can be placed into blanks in complex forms easily. Typing can be recorded and played back. \$39.95. Mainstay, 28611B Canwood St., Agoura Hills, CA 91301. NCP (Jan 86)

## LANGUAGES

**Aztec C** is a C language that will appeal to users with a UNIX **ttt** background. It uses many UNIX conventions and in the more expensive versions comes with standard UNIX utilities, including the VI editor. \$199 basic system, \$299 development system, \$499 commercial system. Manx Software Systems, PO Box 55, Shrewsbury, NJ 07701. NCP (May 86)

**MacAsm** is a software development system that allows programs **ttt** to be written in assembly language. Programmers can assemble, edit and test software, and an integrated resource compiler lets independent applications run from their own icons. \$125. Mainstay, 28611B Canwood St., Agoura Hills, CA 91301. NCP

**Mac C** is a good, highly Mac-oriented implementation of this **ttt** popular development language. Assembler and linker built-in. \$425. Consulair, 140 Campo Dr., Portola Valley, CA 94025. NCP

**MacExpress** is a development environment or shell. Programmers **ttt** use it to save time and effort when developing standalone applications for the Mac. Easy to use for those with a strong technical background. \$195. ALSoft, PO Box 927, Spring, TX 77383. NCP (Feb 86)

**MacForth** is an implementation of the popular Forth programming **ttt** language. Level 1 is a simple, introductory version. Level 2 supports the Mac Toolbox fully. Level 3 extends the language to allow standalone applications. \$149 (Level 1), \$249 (Level 2), \$499 (Level 3). Creative Solutions, 4701 Randolph Rd., Rockville, MD 20852. NCP

**Mach II** is a multitasking implementation of Forth that allows local **ttt** variables and text files. Can create standalone applications. Several windows can be up with different operations in each, concurrently. \$99.95. Requires 512K. Palo Alto Shipping, PO Box 7430, Menlo Park, CA 94026. NCP (Apr 86)

**Macintosh 68000 Development System** is a fairly traditional **ttt** assembly language package. The two-disk set provides an editor (*Edit*), an assembler, a linker, an executive and a resource compiler. \$195. Apple Computer, 20525 Mariani Ave., Cupertino, CA 95014. NCP

**Macintosh Pascal** is Apple Computer's version of this very popular **ttt** programming language. Loaded as it is with innovative teaching features, this interpreter is an excellent introduction to Pascal. The documents are mostly references, get a good tutorial textbook. \$125. Apple Computer, 20525 Mariani Ave., Cupertino, CA 95014. CP

**MacScheme** is a LISP dialect with "artificial intelligence" capabilities. **ttt** Has a large appetite for RAM. Interpreted language with Toolbox access limited to a small part of QuickDraw. \$125. Semantic Microsystems, 4470 S.W. Hall St., Beaverton, OR 97005. NCP (Jun 86)

**Megamax C** is an easy to use, full version of C. Has a compiler, **ttt** linker, disassembler, editor and much more. Good for beginners. Excellent documentation. \$299.95. Megamax, PO Box 851521, Richardson, TX 75085. NCP

**Microsoft BASIC** was the Mac's first programming language. This **ttt** interpreter (it's not a compiler) now supports the Toolbox and the whole Mac interface can be implemented in your programs. For nonprogrammers there are lots of programs available to run. \$150. Microsoft, 16011 NE 36th Way, Redmond, WA 98052-6399. NCP

**Microsoft Logo**, from Microsoft's MacLibrary, written by LCSJ. An **ttt** excellent implementation of Logo, taking full advantage of the Mac's user interface. Uses three windows. Turtle looks like a turtle, and its screen actions are very precise. Windows can be resized and moved about. \$124.95. Microsoft, 16011 NE 36th Way, Redmond, WA 98052-6399. NCP

**QUED (Quality Editor for Developers)** is the ultimate source **ttt** code editor. Loaded with useful and well thought out features, it will make any programmer's life much easier. It is not a word processor, however. \$65. Paragon Courseware, 4954 Sun Valley Rd., Del Mar, CA 92014. NCP (Mar 86)

**TML Database Toolkit** is an ISAM type database that provides **ttt** fast and efficient administration of large data files in applications developed with TML compiler. Supports open multiple index files simultaneously. \$89.95. TML Systems, 4241 Baymeadows Rd., Jacksonville, FL 32217. NCP (Dec 86)

**TML (MacLanguage Series) Pascal** is a good Pascal compiler, **ttt** capable of producing standalone programs. Can use most existing Lisa Pascal programs with only slight modification. Requires 512K. \$99.95. TML Systems, PO Box 361626, Melbourne, FL 32936. NCP (Jun 86)

**TML Source Code Library** shows how to write programs that use **ttt** custom definition routines, speech, serial drivers, split bars and other topics. Provided on three 400K diskettes. Requires TML Pascal. \$79.95. TML Systems, 4241 Baymeadows Rd., Jacksonville, FL 32217. NCP (Dec 86)

**ZBasic** is a fast interactive compiler capable of creating stand- **ttt** alone applications that takes advantage of Mac's unique features and abilities. Includes *Edit*, *RMaker*, and *MacIntalk* tools. Incomplete documentation. Requires 512K. \$89.95. Zedcor, 4500 E. Speedway Blvd., Tucson, AZ 85712. NCP (Dec 86)

## EDUCATION

**ChipWits** is a combination game and teaching tool. Players create **ttt** programs to maneuver robots through a set of 8 mazes. The programs are written in *ChipWit's* built-in icon-based programming language (IBOL). IBOL is a nearly perfect introduction to programming for nonprogrammers. \$49.95. BrainPower, 24009 Ventura Blvd., Calabasas, CA 91302. NCP

**DietMac** is a database consisting of about 800 foods with **ttt** nutritional information, from which to choose for planning daily menus. The Modify Food Data option allows users to customize and update data. Some on-screen help. \$79. Tess Data Systems, 17070 Red Oak Drive, Houston, TX 77090. CP (May 86)

**KidsTime** is a package of five quality educational programs for **ttt** children between the ages of 3 and 12. The programs all have adjustable difficulty levels. Some use speech and one is a nice introduction to musical notes. Sparse documentation. \$49.95. Great Wave Software, PO Box 5847 Stanford, CA 94305. CP (Oct 86)

**MacChemistry** is a two-disk set consisting of a titration program, **ttt** a periodic table program, *MacNest* (a scrapbook with indexing), and a disk of *MacPaint* files. *MacNest* is of general appeal. \$145. Fortnum, 31 W. Sierra Madre Blvd., Sierra Madre, CA 91024. NCP

**MacEdge** and **MacEdge II** each contain 8 reading or math drill **ttt** programs for basic skills. Programs follow one of three formats, a bit contrived. Contrivances are design flaws — they require learning format as well as skill. \$49.95 each. Think Educational Software, 16 Market St., Potsdam, NY 13676. CP

**MacStromy** is a good package for novice sky watchers. Has **ttt** expandable database of sky objects that can be customized by the user. New version is very fast. \$75. Etlon Software, PO Box 649, Lafayette, CO 80026. CP (Apr 86)

**MacType** offers structured typing instruction. Can teach both **ttt** standard and Dvorak keyboards. Features include certificates for reaching certain levels. Can be used in a multistu-

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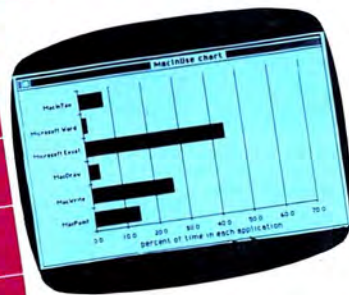
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# MINIFINDERS



dent environment. \$49.95. Palantir Software, 12777 Jones Rd., Houston, TX 77070. CP

**MasterType** is proof that learning to type can be fun. In this arcade-style action game words descend from four corners towards the center ship; the user must type them correctly. Features 18 skill levels, tracks errors, recommends lessons and provides comparison scores. \$49.95. Mindscape, 3444 Dundee Rd., Northbrook, IL 60062. CP

**NotePro** is an educational package that teaches users to organize and make best use of their notes. Consists of five well designed parts, which can be used individually or as a whole. \$59.95. Learning Skills, PO Box 8038, Reno, NV 89507. NCP (Jul 86)

**Score Improvement System for the SAT** is a no-nonsense drill and practice session covering practice tests, vocabulary, reading comprehension, math and quantitative comparisons. On-line tutoring for wrong answers. \$99.95. Hayden, 600 Suffolk St., Lowell, MA 01854. CP (May 86)

**Speed Reader II** builds skills sequentially to develop faster, more efficient reading and improve retention. Scores are kept, and can be graphed. High school level selections included, other levels available on data disks. \$69.95. Davidson & Associates, 3135 Kashiwa St., Torrance, CA 90505. CP? (Apr 86)

**Tellstar I & II** are Mac astronomy programs. Have extensive databases, quick sky plotting and can locate specific objects. Level II has southern hemisphere star table, Messier objects. \$49.95 (level I), \$79.95 (level II). Spectrum HoloByte, 1050 Walnut, Boulder, CO 80302. NCP (Apr 86)

**Turbo Turtle** is a turtle graphics program primarily designed as a learning tool for children. Uses Logo commands for graphics, but is not a full Logo implementation. Simple to use,

good introduction to Logo for young children. \$59.95. Hayden, 600 Suffolk St., Lowell, MA 01854. CP

## ENTERTAINMENT

**A Mind Forever Voyaging** is a departure in text adventure games.

It has a more extensive vocabulary and a more involved story than most of the genre. The story here is gripping, but there are only a few puzzles to solve. Requires 512K+. \$44.95. Infocom, 125 CambridgePark Dr., Cambridge, MA 02140. CP (Apr 86)

**Airborne** is a classic arcade-style game with "real" sound effects.

The player defends against an assault from flying enemies. Game noises digitized from actual recordings add to the game. \$34.95. Silicon Beach, PO Box 261430, San Diego, CA 92126. CP

**Alter Ego** simulates the entire lifetime of a fictional character. The

player's reaction to each multiple-choice event shapes the character's future relationships, job, health, etc. Spectacular the first time you play; after that there are too many similarities to previous characters. \$59.95. Activision, PO Box 7287, Mountain View, CA 94039. CP (June 86)

**The Ancient Art of War** gives users a chance to refight some

famous campaigns on both strategic and tactical levels. Campaigns can also be designed from scratch. Very playable, addicting game. Requires 512K+ Mac. \$49.95. Broderbund, 17 Paul Dr., San Rafael, CA 94903. CP (Apr 86)

**Archon** pits the forces of Light against Dark in a quest to gain

control of five Power Points on a checkerboard grid. The shifting cycles of squares' colors keeps the balance of power ever-changing. One or two players. \$44.95. Electronic Arts, 2755 Campus Dr., San Mateo, CA 94403. CP (Oct. 86)

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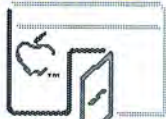
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# MINIFINDERS



**Balance of Power** is the world's first computer peacegame. This **★★★★** simulation allows players to become either the President of the United States or General Secretary of the Soviet Union. Extraordinary artificial intelligence routines and general play make this a classic. \$54.95. Mindscape, 3444 Dundee Rd., Northbrook, IL 60022. CP (Prem)

**Borrowed Time** casts players as detectives who have to solve their own murder—before it happens. This game requires players to think and act like a detective to solve the game. Good sentence parser, sketchy Mac interface. \$44.95. Activision, PO Box 7287, Mountain View, CA 94039. CP (May 86)

**Bridge 4.0** provides three other players and the cards for a game **★★** of rubber bridge. It's an average (Goren) bidder and a less than good card player. \$29.95. Artworx Software, 150 N. Main St. Fairport, NY 14450. CP (Sep 86)

**Deja Vu: A Nightmare Comes True** is a graphic adventure that **★★★★** breaks new ground. Innovative use of the Mac interface in truly playable and exciting game. A great introduction to graphic adventure games. \$49.95. Mindscape, 3444 Dundee Rd., Northbrook, IL 60062. CP (Jan 86)

**Dinner at Eight** is a useful recipe filing system that includes a **★★★★** collection of recipes from a nationwide sampling of restaurants. Users enter number of diners and program scales recipes accordingly. \$59.95. Rubicon, 6300 La Calma Dr., Austin, TX 78752. CP (Jan 86)

**Dungeon of Doom** is a fairly standard, *Ultima*-type adventure **★★★★** game of the pick-it-up, cut-'em-down variety. Fun, if you like the type. Requires 512K. Version 4 is HFS compatible. Shareware. \$25. If you like it. John Raymonds, PO Box 13, Pittstown, NJ 08867. NCP (Jan 87)

**Enchanted Scepters** is a surround sound graphic adventure **★★★★** game. It has a limited vocabulary and virtually no story.

Offers extensive and varied scenes and utilizes the Mac interface to the fullest. A worthwhile adventure experience. \$39.95. Silicon Beach, PO Box 261430, San Diego, CA 92126. CP (May 86)

**Flight Simulator** puts you at the controls of a small plane (prop or **★★★★** jet) and lets you roam North America. As difficult as real flying. Mac version has features not found on earlier versions, including spotter aircraft. Not all features available on 128K. \$49.95. Microsoft, 16011 NE 36th Way, Redmond, WA 98052. CP

**Fokker Triplane** is about as near to flying as you can get seated in **★★★★** front of a computer. Very realistic simulation and excellent graphics. Well designed and implemented. \$59.95. Bulseye Software, PO Drawer 7900, Incline Village, NV 89450. CP (Feb 86)

**Gato** puts players in command of an American submarine in World **★★★★** War II. This superb simulation game uses all of the Mac's graphic capabilities to really make you feel that "you are there." \$39.95. Spectrum Holobyte, 1050 Walnut St., Boulder, CO 80302. CP (Nov 85)

**Grand Slam** is an absorbing and realistic tennis simulation game. **★★★★** Practice or play tournament against Mac-controlled players with different styles and abilities on four different surfaces. 512K or Mac Plus. \$49.95. Infinity Software, 1331 61st St., Emeryville, CA 94608. CP (Nov 86)

**Gypsy** is a computerized, customizable Ouija board. More than just **★★★★** a software package, users get a pasteboard playing surface and a Mouse Mover with 99 ball bearings. \$39.95. Magnum, 21115 Devonshire St., Chatsworth, CA 91311. CP (Prem)

**Lode Runner** is a 150-screen action-strategy challenge that **★★★★** requires a joystick for truly effective play. Move around a grid of ladders and platforms collecting treasure; dig a hole

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# MINIFINDERS



to trap pursuers. Build your own challenges. \$39.95. Broderbund, 17 Paul Dr., San Rafael, CA 94903. CP

**MacChallenger** lets players land a space shuttle. The graphics of this flight simulator are crude and it's a hard machine to fly, but it's also a lot of fun. Lets you record your landing attempt and then review it from any of ten camera angles. \$49.95. Aegis Development, 2210 Wilshire Blvd., Santa Monica, CA 90403. CP (Feb 86)

**MacGolf** is a dynamic simulation of real golf. Players have a choice of courses and difficulty levels. Superb playability makes this a must for all golfers and gamers. Requires 512K+. \$59.95. Practical Computer Applications, 1305 Jefferson Highway, Champlin, MN 55316. CP (May 86)

**Macinooga ChooChoo** is a set of electronic toy trains. Run on the layouts provided, or create your own, as complex as you wish. Create scenery using built-in tools or import fancier *MacPaint* scenery. \$39. Fortnum, 31 W. Sierra Madre Blvd., Sierra Madre, CA 91024. NCP (Apr 86)

**MacVegas** contains seven complete casino-style games: blackjack, craps, keno, poker, roulette and slots. All are fairly standard, but generally well designed. House rules can be selected from a menu. The games are all fun to play, but not particularly absorbing. \$59. Videx, 1105 Northeast Circle Blvd., Corvallis, OR 97330. CP

**Make Millions** is a fascinating business simulation in which the player competes against the computer to take control of five companies, then run them profitably. Appeals to the closet capitalist in all of us. \$49.95. Scarborough Systems, 55 South Broadway, Tarrytown, NY 10591. CP

**MazeWars+** is an interactive, multiplayer game to be played on AppleTalk or through a modem link. Chase opponents through a four level maze. Smooth animation, slick graphics and good playability make this a natural for telecommunications fans. Requires 512K+, AppleTalk or Hayes compatible modem. \$49.95. MacroMind, 1029 W. Wolfram, Chicago, IL 60657. NCP (Nov 86)

**Mind Over Mac** features five games. Entertainment for the whole family. Good graphics paired with synthesized sound and on-screen help. \$49.95. Think Educational Software, 16 Market St., Potsdam, NY 13676. CP (Feb 86)

**Mind Prober** is a demonstration of a very simple expert-style system. How well do you know your friends? Answer certain statements as either true or false, and the computer prints a 3- to 5-page psychological profile of subject in business, stress, sex and other situations. \$50. Human Edge Software, 2445 Faber Pl., Palo Alto, CA 94303. CP

**The Mist** is an all-text "interactive novel" based on a short story by Stephen King. Vivid graphic and sometimes gory descriptions compensate for the game's muddled sentence parser. The story is involving, while the game is overly lock-step. \$39.95. Mindscape, 3444 Dundee Rd., Northbrook, IL 60062. CP (May 86)

**NewGammon** is animated backgammon that will challenge even good players. Features include variable skill levels and strategies and options to play the Mac or watch the Mac play itself. An arcade-like high speed mode is included. \$39.95. Newsoft, PO Box 4035, Newport Beach, CA 92661. CP

**Orbiter** puts a real space shuttle on the Mac screen. A multitude of controls, intelligent on-board computer with speech capabilities, real-time graphics and 16 distinct missions help this program succeed as both a game and a simulation. \$49.95. Spectrum HoloByte, 1050 Walnut St., Boulder, CO 80302. NCP (Jul 86)

**Orbquest** is a fantasy role-playing adventure with better-than-average puzzles and an excellent sense of humor. Not as sophisticated as some, but a good value. \$49.95. QWare, PO Box 850415, Richardson, TX 75085. CP (Dec 86)

**Pinball Construction Set** lets users create their own pinball games, as elaborate or as easy as desired. Uses *MacPaint* for backgrounds and has lifelike sounds (on 512K+ Macs). No documentation to speak of. \$40. Electronic Arts, 2755 Campus Dr., San Mateo, CA 94403. CP (Jan 86)

**Psion Chess** is as good a micro chess player as you'll find. This 1984 World Micro Champion makes superb use of graphics and the Mac interface. Switch between 6 languages for a touch of spice. \$59.95. Psion, 40 Lindeman Dr., Trumbull, CT 06611. CP (Mar 86)

**Real Poker** is five-card draw against five other players with Old West names, distinct personalities and playing styles, in a saloon setting. Dealing and play are very fast. Game evaluates your hand. \$39.95. Henderson Associates, 980 Henderson Ave., Sunnyvale, CA 94086. CP

**Sargon III** is a chess program with 9 levels of play, problem-solving modes, take back, hint, etc. Easy Play blocks *Sargon* from stealing search time during player's move, effectively doubling number of levels. Disk stores 107 classic games for review and replay. \$49.95. Hayden, 600 Suffolk St., Lowell, MA 01854. CP (Mar 86)

**Shanghai** challenges players to clear a board of all 144 tiles, by matching pairs of mah-jongg tiles and removing them. Terrific strategic options plus the ability to randomly generate new game boards keep this one fresh. \$44.95. Activision, PO Box 7287, Mountain View, CA 94039. CP (Oct 86)

**Skyfox** is a sophisticated 3D shoot-em-up. You're fighting tanks, planes, and enemy cities floating in the sky. Fast graphics, good sound, slick, on-board attack computer and many levels of difficulty will keep fans of this genre happy for hours. \$39.95. Electronic Arts, 2755 Campus Dr., San Mateo, CA 94403. CP

**Smash Hit Racquetball** is an accurate and entertaining simulation of a day on the courts. Digitized sound adds to the realism. Includes a hard disk install, unusual for a game. The low price makes this the perfect Mac gift. \$14.95. Primera Software, 33 Norwood Ave., Kensington, CA 94707. CP (Dec 86)

**Strategic Conquest** is large scale, strategic conflict on the Mac. This very involved war game will be enjoyed by those who like this genre. \$49.95. PBI Software, 111 Triton Dr., Foster City, CA 94404. CP (Dec 85)

**Suspended** is Infocom's most unique text game. Using a small plastic board and six markers, the player keeps track of six uniquely designed robots which check on damage to a complex's machinery and report back what they perceive as the problem. \$49.95. Infocom, 125 CambridgePark Dr., Cambridge, MA 02140. CP

**Tass Times in Tone Town** is a slightly off-the-wall graphic adventure in which you need a flashy hairdo and a jumpsuit before you can get anywhere, and you pay for things with guitar picks. Decent puzzles, with a sense of humor. \$39.95. Activision, 2350 Bayshore Pkwy, Mountain View, CA 94043. CP (Jan 87)

**The Toy Shop** is a construction kit for building 20 different working model toys. Some parts can be customized. Manual gives clear instructions, but many toys are too complex for a child to build. \$64.95. Broderbund, 17 Paul Dr., San Rafael, CA 94903. CP (Nov 86)

**Ultima II** players take the part of a character who travels through land, sea, air, space and even time itself in a quest to find and defeat the evil sorceress Minax. Good Mac interface; excellent game; confusing graphics. \$59.95. Sierra, PO Box 485, Coarsegold, CA 93614. CP

**Ultima III** allows up to four characters to cooperate to explore the vast wilderness of Sosaria; dungeons, oceans, and the Moon Gates to help solve the adventure. \$59.95. Origin Systems, 340 Harvey Rd., Manchester, NH 03103. CP

**Winter Games** lets up to eight players compete against each other in Olympic events including figure skating, bobsledding, biathlon and ski-jumping. Excellent animation, good graphics, good theme music. \$39. Epyx, 1043 Kiel Ct., Sunnyvale, CA 94089. CP (Mar 86)

**Wizardry** is an outstanding dungeon exploration adventure pitting a party of up to six characters against the guardian monsters of the evil wizard Werdna. Capture his amulet to earn your reward. Even after solving the game, you'll want to go back



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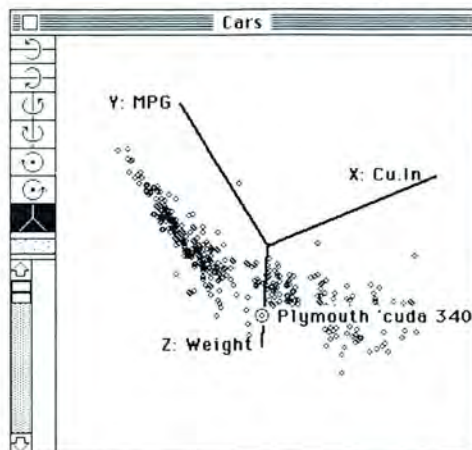
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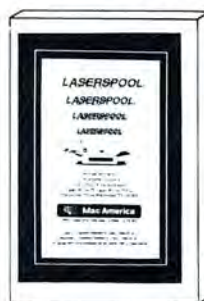
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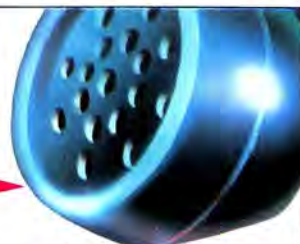
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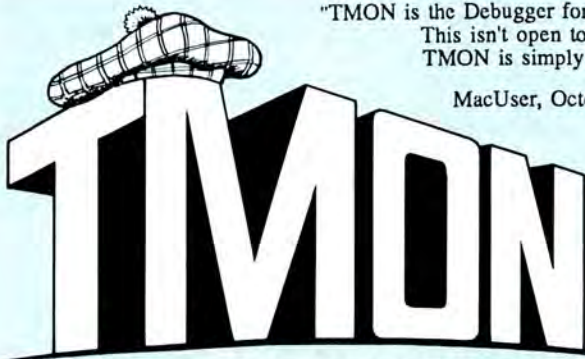
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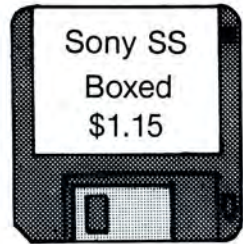
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# MINIFINDERS



into the dungeon. \$59.95. Sir-Tech, 6 Main St., Ogdensburg, NY 13669. CP

**WordPlay** is a word game with over 50 crossword puzzles for different levels of expertise. User friendly, it offers on-screen Help menus. A Work mode allows development of new puzzles for the creative. \$49.95. Palantir, 12777 Jones Rd., Houston, TX 77070. NCP (Mar 86)

**Xyphus** is a role-playing game pitting four characters (fighters or wizards) against multiple scenarios that grow increasingly harder. Excellent Mac interface and icon control. \$39.95. Penguin, PO Box 311, Geneva, IL 60134. CP

**Zork II** is where the adventure continues in the underground empire. A wandering wizard keeps things interesting, though there's a way to beat him if you persevere. \$44.95. Infocom, 125 CambridgePark Dr., Cambridge, MA 02140. CP

**Zork III** is the final chapter in the trilogy. Players come up against the ultimate enemy—the Dungeonmaster himself. More closed-ended than previous *Zorks*. \$44.95. Infocom, 125 CambridgePark Dr., Cambridge, MA 02140. CP

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**ConcertWare+** is an enhanced version of *ConcertWare*. Has different instruments and can use any four of a set of eight at any point in a piece. Can read and use *ConcertWare* and *MusicWorks* files. \$69.95. Great Wave Software, PO Box 5847, Stanford, CA 94305. NCP (Nov 85)

**Deluxe Music Construction Set** is a good general purpose music program. An active piano keyboard and instant audio feedback make this program perfect for educational applications, and the advanced notational capabilities will satisfy most advanced musicians. \$50. Electronic Arts, 2755 Campus Dr., San Mateo, CA 94403. CP (Mar 86)

**Listen** is an educational tool for ear training. It has both a piano keyboard and a guitar fretboard for the student to input notes, and offers a wide range of exercises. It also produces some beautiful sounds. \$69. Imaja, PO Box 638, Middletown, CT 06457. CP (Jan 87)

**Performer** is a strong contender for the high-end of the MIDI sequencer market. Only those experienced with MIDI should get this. Files can be transported to *Professional Composer* for editing. No direct track or segment looping. \$295. Mark of the Unicorn, 222 Third St., Cambridge, MA 02142. CP

**Professional Composer** is aimed at music professionals. Produces performance-quality sheet music; has only limited playback facilities. \$495. Mark of the Unicorn, 222 Third St., Cambridge, MA 02142. CP (Prem)

**Studio Session** consists of two programs, and Editor and a Player, that produce music with six voices of digitized sound. Although the program is superb, documentation and technical support are poor. \$89.95. The Kette Group, 6860 Shingle Creek Pkwy, Minneapolis, MN 55430. CP (Dec 86)

## HARDWARE & ACCESSORIES

**Ergotron** is a Mac (and external drive) holder that allows a full range of swiveling and tilting. Very strong, this well made unit is also very easy to use. \$99.95. Ergotron, PO Box 17013, Minneapolis, MN 55417.

**Hard Disk 20** is Apple's entry in the exploding hard disk sweepstakes. This quiet, small unit uses Apple's new Hierarchical File System (HFS). The lack of utility software (spooler, backup, security) is its only drawback. \$1199. Apple Computer, 20525 Mariani Ave., Cupertino, CA 95014. (Feb 86)

**HyperDrive HD20** is an internal 20-megabyte hard disk. It only adds about 5 pounds to the Mac's weight. Full featured unit with spooler, security program and backup utility. It could use memory a bit more efficiently. \$2195 installed in a 512K+ Mac. General Computer Company, 215 First St., Cambridge, MA 02142.

**Macbottom 20** is a small, external unit that sits under the Mac and connects to the external drive port (not SCSI). Good,

reliable, but noisy unit. Requires 512K+. \$1595. PCPC, 6204 Benjamin Rd., Tampa, FL 33614.

**MacCharlie's** components slip around the Mac and convert it into an IBM PC clone. Amazingly, it works well. The enlarged keyboard has a few bugs but is a joy to use. \$795 with 256K RAM and one floppy drive. \$995 with 640K RAM and two floppy drives. Dayna Communications, 50 S. Main St., Salt Lake City, UT 84144. (Dec 85)

**Macintizer** is a graphics tablet and absolute positioning device that replaces the mouse. Various scales are possible. \$599. GTCO Corp., 7125 Riverwood Dr., Columbia, MD 21046.

**MacNifty Sound Digitizer** turns ordinary analog sound input into digital waveforms which can then be manipulated using the *SoundCap* software it comes with. Capable of truly stunning effects. Requires 512K+. \$129.95. Kette Group, 6860 Shingle Creek Pkwy., Minneapolis, MN 55445.

**MacNifty Stereo Music System** converts Mac sounds to simulated stereo by splitting highs and lows between two speakers. User controls bass, treble, balance, and volume. \$79.95. Kette Group, 6860 Shingle Creek Pkwy., Minneapolis, MN 55445.

**MacNifty Switch** allows any port on your Mac to connect to two peripherals. Turn the knob to switch between the two devices. \$34.95. Kette Group, 6860 Shingle Creek Pkwy., Minneapolis, MN 55445.

**MacTablet** is a stylus-driven graphics tablet. Users can easily sketch or trace art using this absolute-positioning device. Has a working area the size of the Mac screen. Allows concurrent use of the mouse. \$495. Summagraphics Corp., 777 State St. Extension, Fairfield, CT 06430. (Jan 86)

**MacVision** is a digitizer that uses an ordinary video camera for input. Capable of extremely fine results and special effects. Easy to use and well documented. \$399.95. Koala, 3100 Patrick Henry Dr., Santa Clara, CA 95052.

**Maglc** is both the most intimidating and easiest to use digitizer available. Use a regular video camera for input. Once the crowded screen is mastered, any effect is possible. \$399, \$549 with camera. New Image Technology, 10300 Greenbelt Rd., Seabrook, MD 20706.

**Mouse Mover** is a mouse pad-type surface that snaps on to the bottom of the mouse like a roller skate, freeing it up to glide over desk or mouse pad with ease. 99 tiny ball bearings at three strategic points. Mouse glides faster and saves on mouse wear and tear. \$19.95. Magnum Software, 21115 Devonshire St., Chatsworth, CA 91311.

**MouseTop** is unquestionably the cutest mouse cover on the market. Gray, plush fur, round felt ears and button nose and eyes make your mouse look authentic. \$5.49; \$5.95 for MouseTop wearing wire-frame glasses. H&H Enterprises, PO Box 2672, Corona, CA 91718.

**Moustrak** is a fabric covered foam mousing pad. It will increase the efficiency of your mouse while helping to keep it clean. Pad comes in a variety of colors. Particularly useful in the typical office desk top environment. \$10. Moustrak, 3047 St. Helena Hwy., St. Helena, CA 94574.

**NoLabelSystem** is a plastic permanent labeling system in which users slide new tabs into a transparent plastic case on the disk. The tabs stick out of the case slightly, making them easier to read while in the drive. \$19.45. Weber & Sons, 3468 Hwy 9, Freehold, NJ 07728.

**PhoneNet** is an AppleTalk-compatible network. Network can be up to 3000' in length. In-place unused phone cabling can be used for network, and can be combined with AppleTalk on same network. \$49 per node. Farallon Computing, 1442A Walnut St., #64, Berkeley, CA 94709. (Dec 86)

**ThunderScan** replaces the ribbon cartridge in an ImageWriter, which is required to use it. Laser scans art that can be run through the ImageWriter, producing high-quality digitized images. The images can be manipulated as they are created or afterward. \$229. Thunderware, 21 Orinda Way, Orinda, CA 94563.

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## ...LATITUDES

(continued from page 77)

for *MapMaker*. Category name files  
may be created on any text editor  
with each entry followed by a car-  
riage return. Data value files, such as  
those created on spreadsheets like  
*Excel* or *Multiplan*, must be format-  
ted with tabs separating the columns  
of numbers.

The population data added to our  
sample map was imported from Data  
Disk #1. To make sense of this data,  
however, you must also import the  
proper category names. These are  
stored in their own file. Once these  
are imported, the data screens are  
filled in and category names are  
shown automatically on the pull-  
down menu. As with the bound-  
aries, the county population figures  
are organized by federal ID number.

### AROUND THE WORLD IN 80 CLICKS

Although I have referred to this  
program as a digital atlas, *MapMaker*  
will not give Rand-McNally any  
sleepless nights. Useful as they are,  
*MapMaker* maps lack detail. In a  
world projection or a map of a large  
region, where any map will sacrifice  
some detail, this is not a great defi-  
ciency. But in maps of smaller areas,  
the level of detail does not rise  
commensurately with the larger scale  
of the image. Today's microcomput-  
ers do not have the resolving power  
to display atlas quality images.

Our sample map is not exactly a  
precision geographical instrument.  
But in fairness it must be stated that  
this subject was chosen because it  
would provide a particularly stern  
test of *MapMaker's* capabilities.  
When mapping areas where bound-  
aries have been surveyed with great-  
er geometric precision, like Zip  
Code zones, *MapMaker* images are  
more accurate.

In any case, the image accom-  
plishes its purpose: providing a  
framework for the illustration of in-  
formation in a meaningful context.  
Boundary and data files have been  
integrated by *MapMaker* into a cohe-  
sive whole.


### COLOR MY WORLD

Polychromatic Macs are (with  
some exceptions) still in the future  
but a few programs are already in-



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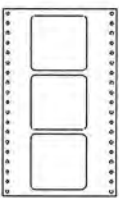
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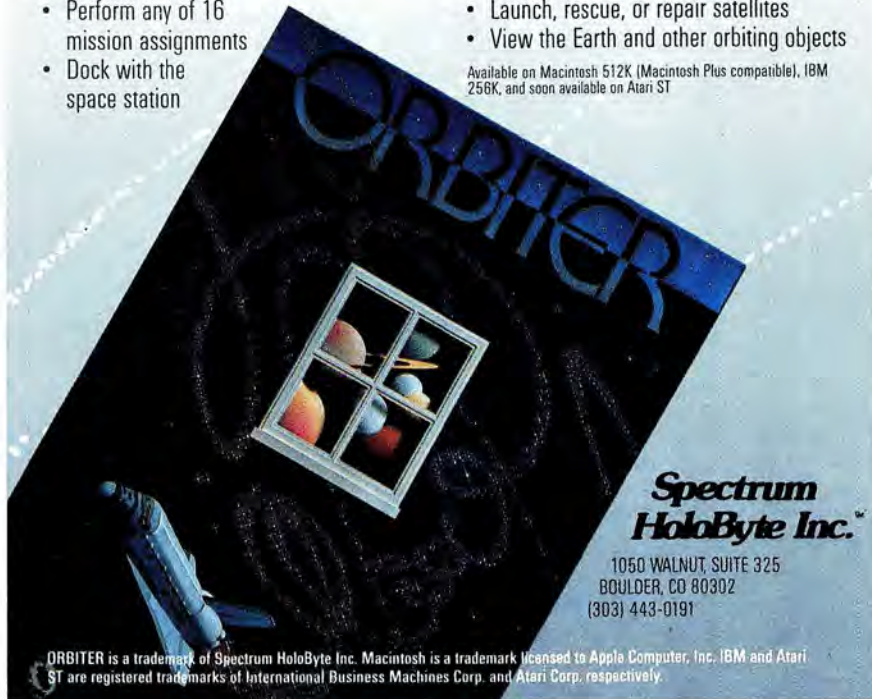
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## ...LATITUDES

corporating the capability to produce color output. Maps are a natural for such treatment and *MapMaker* makes the addition of color simple and easy.

ASSIGN COLORS allows you to specify the color to be associated with various map elements. Similarly, when you ASSIGN SYMBOLS or PATTERNS you may link a color to your choices. At present, color output is possible only with an ImageWriter II with a color ribbon. While color printing can seem painfully slow, the results are outstanding. *MapMaker's* maps seem to come alive.

*MapMaker* also supports the LaserWriter, but only through the DRAFT MAP option. The LaserWriter will reproduce black and white *MapMaker* maps exactly as they appear on the screen. LaserWriter FONT SUBSTITUTION and SMOOTHING commands will have no effect.

When printing maps with the "single sheet" option activated on the Print dialog box, after the "Insert Next Sheet" alert box was deployed on the screen, the Wristwatch did not revert to the Arrow. Normally, control buttons cannot be activated with the Wristwatch on screen, but such is not the case here. (My copy of *MacPaint* behaves similarly.) Simply point and click OK with the Wristwatch and printing proceeds normally.

### MAPMAKER'S ROAD MAP

Although it suffers from a certain lack of visual eloquence, the 63-page, spiral-bound *MapMaker* manual contains most of the information necessary to successfully navigate the program. All important program functions are covered but, unfortunately, neither clearly nor comprehensively enough. So, sometimes finding your way is like driving around with a roadmap that only shows major highways. Overall, this manual is an adequate introduction to the program, but it is not an exhaustive reference.

As an adjunct to the documentation, Select Micro Systems provides an on-line Help function. The program may be learned directly from this function, without ever opening



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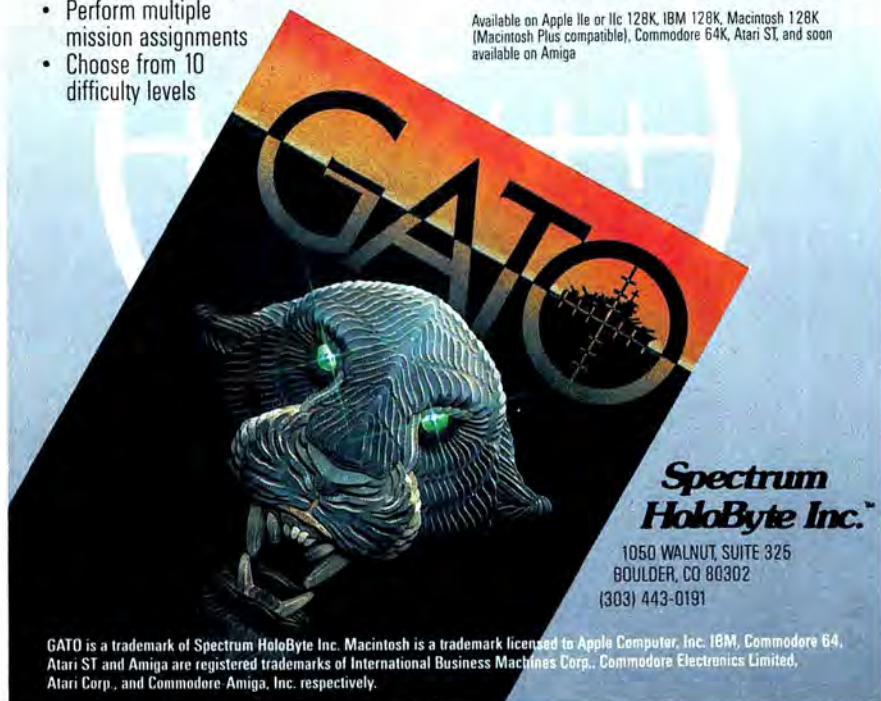


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## ...LATITUDES

the manual. The on-line files appear to be at least as complete as the corresponding entries in the book. And, in a few cases, there is information here that failed to make its way into the written documentation. So, if you have a question not fully resolved by the manual, check the Help files.

### ALL'S RIGHT WITH THE WORLD

At times *MapMaker* seems a little rough around the edges, like a gem that has been artfully cut but still needs a bit of polishing. Boundary and data files could be better arranged on the disks so that it is easier to find them and use them; the documentation could be improved; the foibles still present in the interface need attention. Little things all, but things that dim the luster of the program.

On balance, however, these relative difficulties do not undermine the value of *MapMaker*. That it is less than perfect in its first incarnation does not deter me from recommending it. After all, the true forte of *MapMaker* is the correlation of data variables with geographic constants. And this is accomplished competently and elegantly. Cartography and geographic analysis have become simple and affordable. ☞

CARLOS DOMINGO MARTINEZ IS A FREELANCE WRITER FROM QUEENS, NY.

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## MAPMAKER



### Overall Rating

Follows Mac Interface	■ ■ ■ ■ ■
Documentation	■ ■ ■ □ □
On Screen Help	■ ■ ■ ■ □
Performance	■ ■ ■ ■ □
Support	■ ■ ■ ■ ■
Consumer Value	■ ■ ■ ■ ■

**Comments:** A competent map generator that greatly facilitates the geographical analysis of data. **Best Feature:** Ease of use and functionality, creates maps in minutes. **Worst Feature:** Less than comprehensive documentation. **List Price:** \$295 retail. Requires at least 512K, second drive recommended. Published by Select Micro Systems, 2717 Crescent Drive, Yorktown Heights, NY 10598 (914) 245-4670. Not copy protected.

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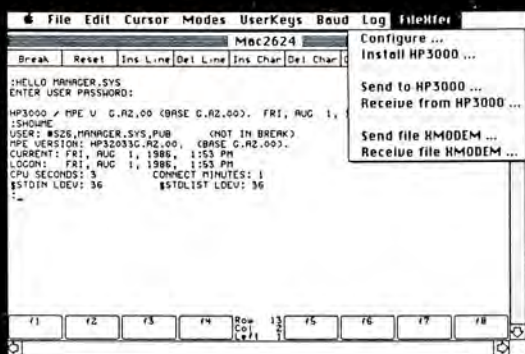
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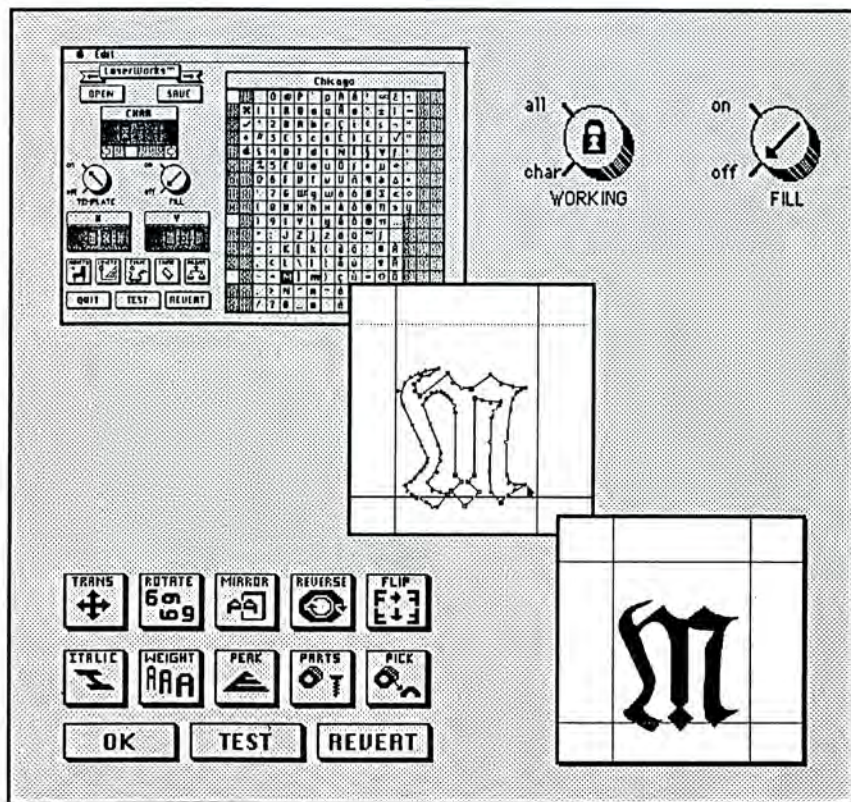
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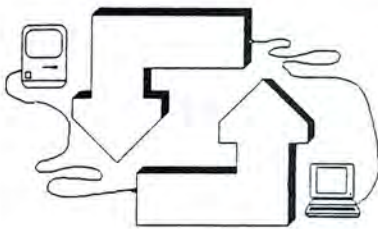
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## ...DUNGEON

(continued from page 122)

Version 3 also has the added bonus of being able to screen dump to your printer a map of the current maze. Version 4 has a bug (or is it a feature?) that makes this impossible, thereby making navigating the mazes even harder. Versions 1 or 2 have the disadvantage of not letting you resurrect a character.

Version 4 is currently available from national electronic services and local BBSs. The file is longish (180K) and requires about 30 minutes to download at 1200 baud, so you may want to check out BBSs or friends first.

Now is definitely the time to start enjoying *D of D* — and to pay for it. Raymonds says there will be no shareware version 5. Instead, he plans to market an improved, commercial version (sure to include digitized sound, for one thing) of the game, along with source code as a programming example of using C in the Mac interface. The combined files would just be too big for telephone transmission. Registered users of the shareware game can upgrade to the commercial version.

One last warning: *Dungeon of Doom* can be habit-forming. So plan on fending off Air Devils and Lizzogs well into the night, and for many nights to come. ☞

DAVE VALIULIS IS A MACINTOSH JUNKIE AND AN EDITOR FOR A SAN FRANCISCO TRADE MAGAZINE.

### DUNGEON OF DOOM



<b>Overall Rating</b>	■ ■ ■ ■ □
Follows Interface	■ ■ ■ ■ □
Printed Documentation	None
On-Screen Help	■ ■ □ □ □
Performance	■ ■ ■ ■ □
Support	■ ■ □ □ □
Consumer Value	■ ■ ■ ■ ■

**Comments:** Standard adventure game in the *Ultima*-series genre. **Best Feature:** Can be played over and over without repeating. Don't have to pay if you don't like it. **Worst Feature:** Lack of documentation makes learning frustrating — unless you like a challenge. **List Price:** Shareware policy of pay-if-you-like-it; \$25. Requires 512K+; Version 4 is HFS compatible. Not copy protected.





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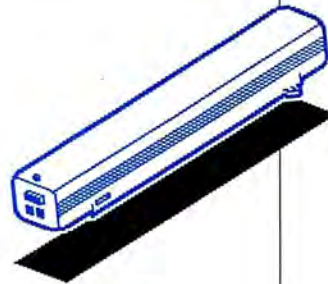
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tcp

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# THE STRIP SHOW

■ This page contains Softstrips: programs and data in a special machine-readable form. The material can range from straight, unformatted data to full-blown Macintosh applications.

To use this material, you'll need a Cauzin Softstrip reader. Readers are available from your local dealer. Be sure you get the Macintosh accessory kit. They're easy to use, well made, and simple to store.

This month's offering is a useful new desk accessory, *New Scrapbook 2.0*. Written by Tim Wasko, it improves upon the standard Apple Scrapbook by allowing portions of a graphic to be copied using a selection marquee, and segments of text to be highlighted and copied to the Clipboard. The graphics can be scaled to fit within the Scrapbook window, permitting large areas to be accessed. Tim asks for a small contribution or a postcard if you find *New Scrapbook 2.0* useful, well worth it for anyone that uses the standard Scrapbook and wishes it were better. Tim's address appears in the desk accessory's opening screen. Note: this desk accessory only works with the newer 128K ROMs in the 512K Enhanced and Mac Plus.

We'd like to know how you are using these strips (if you are!), how you like the Cauzin Reader, and, most importantly, what you'd like to see us publish in strip format. Do you want to see games or utilities? Standalone applications or source code to run or compile? Let us know. Write to S. Strip, c/o *MacUser*, 25 West 39th Street, New York, NY 10018.

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In case you're one of the few Macintosh users who hasn't heard about Softstrip yet, here's what you've been missing. The Softstrip System, in effect, replaces the floppy disk with paper. The centerpiece of the system is the Cauzin Softstrip™ reader — a compact (3" x 16") optical scanner that reads "data strips" printed on regular paper. Each data strip is about 1/2" wide and up to 9 1/2" long. It encodes 8-bit ASCII data into machine-readable form.

The system uses a concept similar to supermarket bar codes, except it can store or retrieve much more data per printed page. One 8 1/2" x 1" sheet of paper can hold as much as 44K of information. And you can create your own data strips with a dot-matrix or laser printer, or a printing press (as so many publications are beginning to do right now).

## What can it mean for you?

Just as the floppy disk expanded software and data distribution beyond anyone's dreams, Softstrip now offers the next great leap forward. Anything you can put on a disk you can put on a Softstrip data strip: information, software programs, video games, sheet music... the list is virtually endless.

And there is no limit to the kinds of files that can be stored on a data strip: text, binary, ASCII, graphics, sound, BASIC, Assembly Language and more. Any combination of files can be stored on a data strip (or group of data strips).

## Who is already using Softstrip™?

Book and magazine publishers are turning to Softstrip in ever-increasing numbers to bring their readers program material right from the printed page. Software publishers can let you sample their latest programs on inexpensive, easy-to-produce printed pages as well. Product presentations, promotional literature, even lengthy instructions, can be produced in extremely limited space. And educational material, from teacher manuals to text books are being provided on Softstrips to give new impetus to computer-aided instruction.

User groups now offer their members a low-cost alternative to disk copying and program sharing. With the Softstrip System's ability to use the same material on different computers, media incompatibility is no longer a problem. Businesses can update prices and catalogs inexpensively and quickly. Time-sensitive data can be distributed faster and more accurately than ever before. Archival data can be linked with any computer, then stored on paper, in file cabinets!

## What do the professionals say?

Critics from the whole spectrum of computer and business publications have given the



Softstrip System unanimous raves. Here are a few of their comments:

"Last time out, when we visited Washington, D.C., for a peek into Congress' crystal ball, we discovered that one of the most significant changes the Office of Technology Assessment predicts for the work place is the rise in technology that can eliminate the need for keyboarding data into computers. For once, Congress is right on target: That technology is already here in the form of Softstrip."

— D & B Reports

"Using the system is as easy as installing it. The reader works flawlessly. The accompanying manual contains sample programs in strip form. The system successfully read every strip into my Apple, even when I intentionally made small errors in alignment. Cauzin Systems has crafted a very fine product at a reasonable price."

— inCider

"It is possible to crumple a page containing Softstrips and then smooth it out and read the data successfully. This ability to correctly read under less than perfect conditions is a major strength of the system. The Softstrip System has the potential to revolutionize how we receive, and in fact use, data."

— MacUser

## What are you waiting for?

To make it as easy and inexpensive as possible for you to acquire your Softstrip System, we've put together a complete package to get you started immediately — plus a FREE bonus. You get the Cauzin Softstrip™ reader (retail value \$199.95), the Macintosh Accessory Kit, containing everything you need to link the reader to your Mac, the \$24.95 Developer's Handbook (to write your own custom software) and the Macintosh Stripper Software (retail value \$19.95). The total retail value is \$244.85. But you pay only \$199.95, plus \$10 shipping, handling & insurance, for the whole package.

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# DIRECTORY · DIRECTORY · DIRECTORY

The **MacUser Directory** is the definitive source for advertising professional products and services. This section will be read by more than 100,000 Macintosh enthusiasts every month. **Specs:** The standard format is 50 words maximum for ad copy, plus four additional lines for your company name, address, and phone number. A **FREE**

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for space and material, please contact Russell Brody, at 25 West 39th Street, New York, NY 10018, or call 1-800-422-6661, New York (212) 302-2626.

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by John C. Dvorak

## APPLE NEEDS A GURU

It was at the Plaza Hotel in New York City. Apple Computers rolled out its new advertising campaign. To entice the media and analyst types, Apple had sent a fancy invitation in a 35mm film can.

This event was a big deal because Apple had dropped creative force ad agency Chiat/Day in favor of a big-time New York agency, BBD&O — the same agency that Sculley used when he was at Pepsico.

The rumors flew. Some said that Apple felt Chiat was simply too small for Apple now that Apple was beyond the 2 billion dollar sales range. Others felt it was just the old boy network taking over. After all, Chiat/Day was "Steve's" agency.

The most curious of the observations came from Sculley himself. He told me that Chiat did a remarkable job with its print campaign, but wasn't as good with TV as BBD&O. I found this an ironic observation since the Chiat TV ads (such as the legendary Macintosh 1984 ad) were fantastic. A few days later I saw a tape of Chiat ads including some for Mitsubishi and other accounts. I found them all engrossing. I noticed one thing, though. The ads had a science fiction and sometimes surreal quality. I assume that Sculley and the boys think that this kind of stuff is too weird for the bedazzled businessman.

It was the businessman as dullard, I figured, who was the target of the new campaign. Chiat couldn't sell to him.

The agency had tried before and failed with the Lisa. It failed with the Mac. So the thinking goes.

But did it fail? If anything, the old TV ads did their job to the nth degree. It was the print ads so cherished by Sculley that failed. The "Test Drive a Mac" campaign and promotion (in which you went into a store and "borrowed" a Mac) was a fiasco. Nobody showed up. The ads promoting the idea were unclear and unfocused. Apple also bought a special edition of *Newsweek* once to promote the Mac. Every ad slot was bought by Apple. This had to be the biggest waste of money in the company's history.

But Apple is so convinced of the invincibility of the Chiat print campaigns that it had BBD&O haul ad superstar Steve Hayden out of the clutches of Chiat and into the big time with big bucks. One rumor had it that this only happened because Sculley was unimpressed (to be polite) with the BBD&O print campaign shown him. Sculley more or less confirmed this when I asked him about it.

But, to me, the signal that Apple is going the route of the button-down and boring was the lackluster presentation at the Plaza. We all expected some sort of show-biz pizzazz to open the show. Nope. Sculley wasn't even announced. He just walked up on stage and started talking. Without his teleprompters, he stumbled and stuttered his way through a genuinely boring speech that lasted too long. It seemed that something was bothering him. Surely it wasn't the earnings report that had Apple on a roll. (Later I noticed "Apple on a Roll" at a sidewalk stand in Times Square.)

To make matters worse, Sculley wore the most gosh-awful attire imaginable. Get this: he sported an ill-fitting blue blazer, striped shirt, a red and blue regimental tie, green corduroy pants with cuffs, and brown shoes. It was enough to make you wonder what he does with the

\$2 million a year he gets to sit in the CEO chair and say "Uh, huh" and "We'll look into it."

The whole scene, to me, confirms my suspicion that the old days are over once and for all. Apple is simply losing its charisma, and if Sculley and the old boy network doesn't get its act together the company is going to lose its "the rest of us" image that is critical to the long-term survival of the company.

I, like many other professional cynics, ridicule the company for such images. It is pretty funny. I also know how important it is to maintain that image. Let's face it: nobody wants to identify with the button-down gray gray world of the IBM. Why don't we just shoot ourselves? If Apple keeps up its death march toward the dull and boring there will be *no* alternative.

I recently spoke at an Apple event and had a conversation with some Apple executives. Ex-Apple project manager and software guru Trip Hawkins was there. Hawkins and I both agreed that Apple's refusal to reinstitute a symbolic figure as a spokesman is a mistake. I think it is the beginning of the end. Unless Sculley is out and about in his dubious clothes, all the public gets is carefully crafted quotes from the PR department. Specifically Barbara Krause.

Barb is the best mouthpiece Apple has ever had (the others have been less than sincere). But so what? The public needs a guru, a Jobs, a Wozniak — someone who talks in terms of ideas, not defensive and dry facts. Sculley refuses to do it.

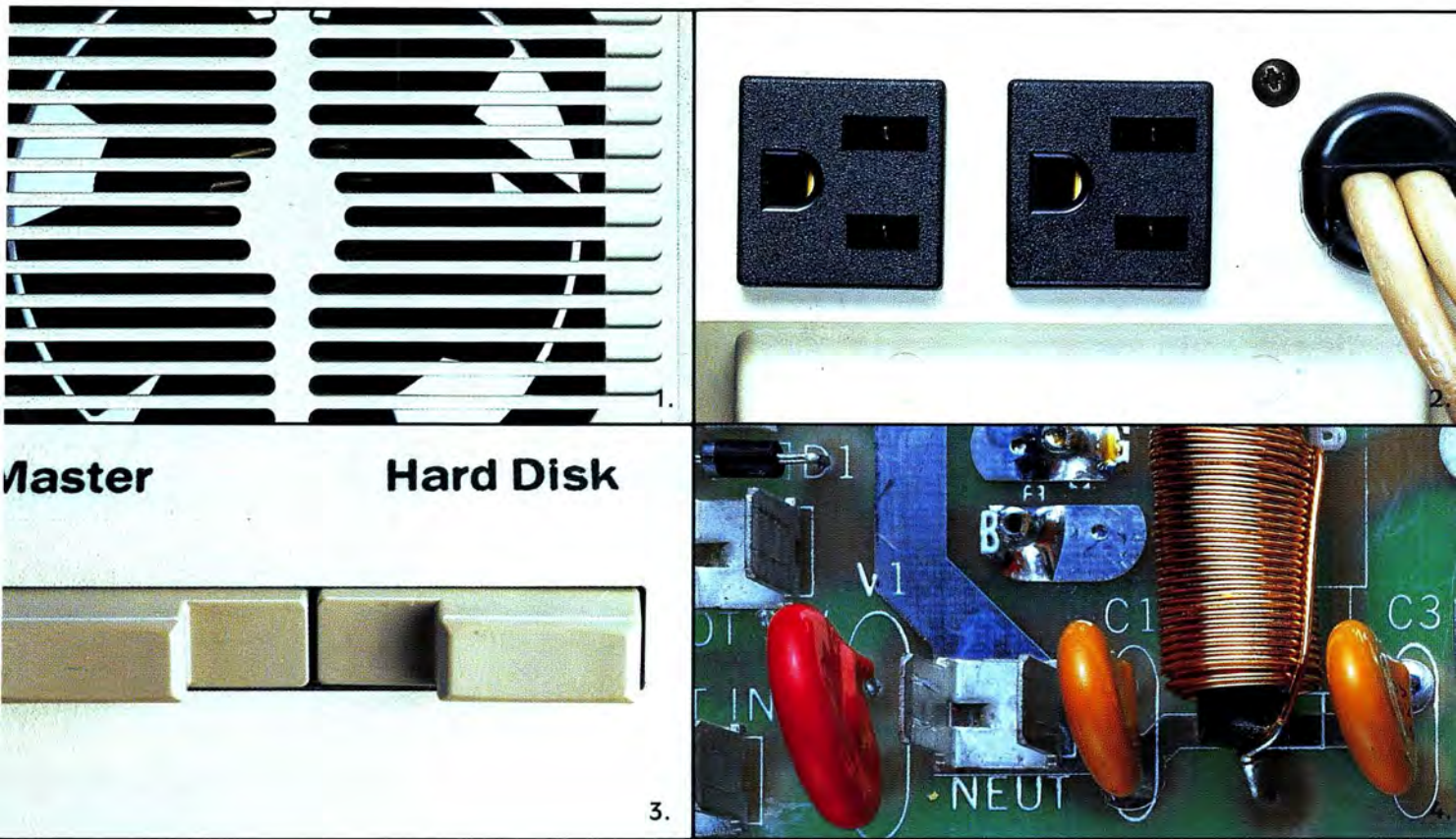
I have a suggestion. Find Andy Hertzfeld and make him the Apple spokesman and guru. If you know much about Apple, then you know about Andy. He made *Switcher* and *Servant* and lots of other stuff. He's a former employee and still associated with the company. Furthermore, Andy is full of enthusiasm, full of ideas, full of company pride. In short, Andy is full of it. Perfect! Perfect as the Apple company spokesman. Let's face it, he'd be a perfect cover boy on *Newsweek* or *Time*. I can see the bold headline now: Andy Hertzfeld — Genius or Fantic?

While Andy thinks I'm a jerk because I'm not enamored of his buddy "Steve," I'm rather sincere about this idea. He's the last chance Apple has to regain its credibility as the computer company for the "rest of us." Every great computer company needs a guru, a bean counter and a hot operations chief. Apple has everything but the guru.

It's ironic. A few years ago it had nothing but gurus. ☐



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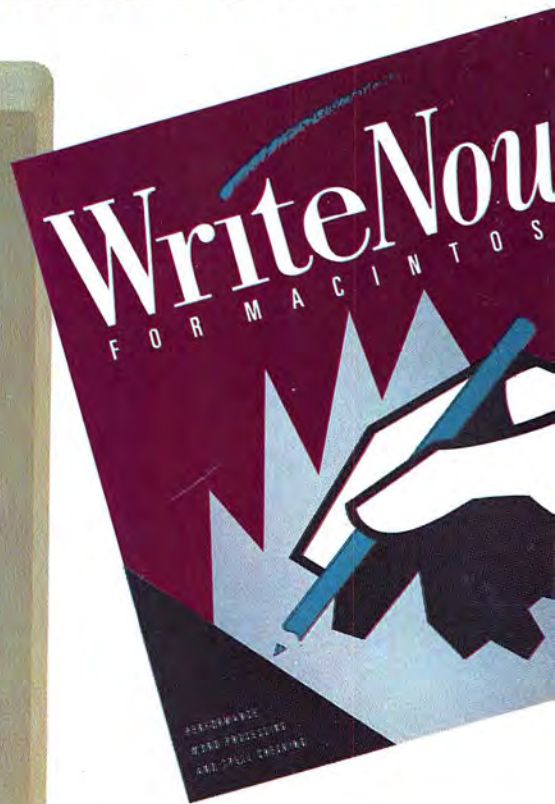
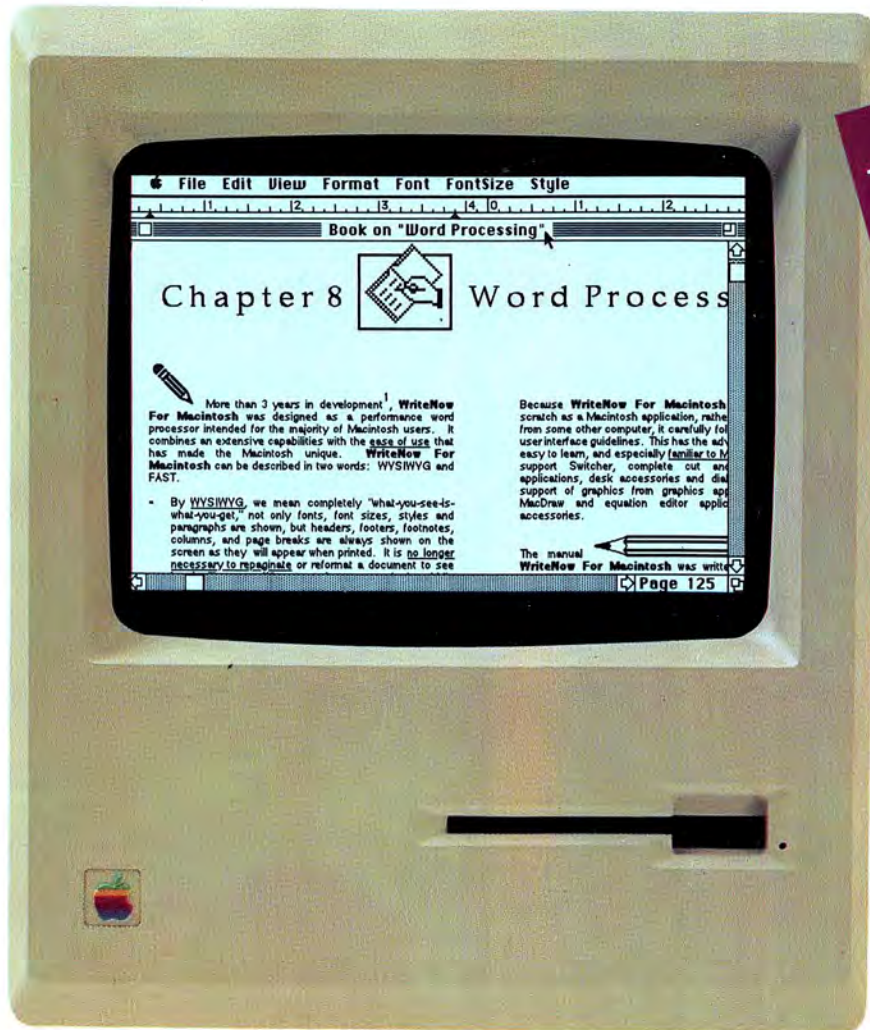
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